THE

# CRITICAL REVIEW.

## DECEMBER, 1801.

ART. I.—GLIG-GAMENA ANGEL-DEOD; *or, the Sports and Pastimes of the People of England: including the rural and domestic Recreations, May-Games, Mummeries, Pageants, Processions, and pompous Spectacles, from the earliest Period to the present Time. Illustrated by Engravings selected from ancient Paintings; in which are represented most of the popular Diversions. By Joseph Strutt.* 4to. 3*l.* 3*s. plain;* 5*l.* 5*s. coloured; in Boards.* White. 1801.

THE ingenious and industrious author of this work is already well known to the public by similar productions on English history and antiquities, which have secured to him a considerable reputation. From the miniature paintings in manuscripts, and other sources, he has almost rivaled Montfaucon in the illustration of national manners and monuments, and may be ranked in the class of solid and judicious antiquaries; a class perhaps the most rare of good English writers.

The work begins with an introduction of fifty pages, followed by the contents. It is divided into four books: 1. Rural exercises practised by persons of rank; 2. Rural exercises generally practised; 3. Pastimes usually exercised in towns and cities, or places adjoining to them; 4. Domestic amusements of various kinds, and pastimes appropriated to particular seasons. There is also an Appendix, containing an account of the manuscripts from which the plates have been taken. The whole arrangement is excellent, and we can scarcely suggest any improvement. The work itself occupies 301 pages; and the plates, including the frontispiece, amount to forty.

In the introduction, Mr. Strutt gives a general arrangement of the popular sports, pastimes, and military games, together with the various spectacles of mirth or splendor exhibited publicly or privately in England for the sake of amusement.

'In order to form a just estimation of the character of any particular people, it is absolutely necessary to investigate the sports and pastimes most generally prevalent among them. War, policy, and other contingent circumstances, may effectually place men, at diffe-

rent times, in different points of view; but, when we follow them into their retirements, where no disguise is necessary, we are most likely to see them in their true state, and may best judge of their natural dispositions. Unfortunately, all the information that remains respecting the ancient inhabitants of this island is derived from foreign writers, partially acquainted with them as a people, and totally ignorant of their domestic customs and amusements: the silence, therefore, of the contemporary historians on these important subjects leaves us without the power of tracing them with the least degree of certainty; and, as it is my intention, in the following pages, to confine myself as much as possible to positive intelligence, I shall studiously endeavour to avoid all controversial and conjectural arguments. I mean also to treat upon such pastimes only as have been practised in this country: but, as many of them originated on the continent, frequent digressions, by way of illustrations, must necessarily occur: these, however, I shall make it my business to render as concise as the nature of the subject will permit them to be.' P. i.

Our author then mentions the games and amusements of the Anglo-Saxons, among which he classes chess and backgammon; but we should rather have said backgammon and tables, or drafts, since, although we be inclined to praise Mr. Strutt's accuracy, others assert that chess was introduced after the crusades.

We may here stop to regret the want of an index, the common objection against books published in England; and we are wholly at a loss to account for such an omission in any work that deserves to be consulted, while every trifling book on the continent receives this indispensable addition.

Mr. Strutt next considers the tournaments: but it was impossible to throw new light on a subject so often treated. Other exercises of chivalry are afterwards illustrated; and our author observes, that the progress of literature operated, among other causes, to the discontinuance of the athletic exercises. This reflexion is just; and it may be added, that there is certainly a radical defect in the present plan of education, in which the health of the body is sacrificed to the supposed improvement of the mind. In plain sense, no utility can be discerned in the pursuit of any study, and especially that of dead languages, before the mind be sufficiently ripe to imbibe it. It has often impressed us, that before the age of twelve years no useful and lasting knowledge can be acquired. Prior to this age, it is far more important that children should lay in a sufficient stock of health, and should particularly be taught to swim, to ride, to scate, to fence; that, in short, they should become acquainted with all those exercises which, confessedly, cannot be so well acquired at a more advanced period of life, while the study of a learned language, or any sedentary science, may be obtained at any time. Such a plan of education would infallibly prove

the best antidote to that long train of nervous and other diseases unknown to our ancestors.

To return—Mr. Strutt then proceeds to illustrate ancient amusements, by various passages from the Anatomy of Melancholy, and other old English books.

'A foreign writer, who visited this country at the close of the seventeenth century, says of the English, that they are "serious like the Germans, lovers of show, liking to be followed wherever they go by whole troops of servants, who wear their master's arms in silver." This was no new propensity: the English nobility at all times affected great parade, seldom appearing abroad without large trains of servitors and retainers; and the lower classes of the people delighted in gaudy shows, pageants, and processions.

'If we go back to the times of the Saxons, we shall find that, soon after their establishment in Britain, their monarchs assumed great state. Bede tells us, that Edwin, king of Northumberland, lived in much splendor, never traveling without a numerous retinue; and when he walked in the streets of his own capital, even in the times of peace, he had a standard borne before him. It is unnecessary to multiply citations; for which reason I shall only add another. Cnut the Dane, who is said to have been the richest and most magnificent prince of his time in Europe, rarely appeared in public without being followed by a train of three thousand horsemen, well mounted and completely armed. These attendants, who were called *house carles*, formed a corps of body guards, or household troops, and were appointed for the honour and safety of that prince's person. The examples of royalty were followed by the nobility and persons of opulence.

'In the middle ages, the love of show was carried to an extravagant length; and, as a man of fashion was nothing less than a man of letters, those studies that are best calculated to improve the mind were held in little estimation.

'The courts of princes and the castles of the great barons were daily crowded with numerous retainers, who were always welcome to their masters' tables. The noblemen had their privy counsellors, treasurers, marshals, constables, stewards, secretaries, chaplains, heralds, pursuivants, pages, henchmen, or guards, trumpeters, and all the other officers of the royal court. To these may be added whole companies of minstrels, mimics, jugglers, tumblers, rope-dancers, and players; and especially on days of public festivity, when, in every one of the apartments opened for the reception of the guests, were exhibited variety of entertainments, according to the taste of the times, but in which propriety had very little share; the whole forming a scene of pompous confusion, where feasting, drinking, music, dancing, tumbling, singing, and buffoonery, were jumbled together, and mirth excited too often at the expence of common decency. If we turn to the third book of Fame, a poem written by our own countryman Chaucer, we shall find a perfect picture of these tumultuous court entertainments, drawn, I doubt not, from reality, and perhaps without any great exaggeration. It may be thus expressed in modern language: Minstrels of every kind were stationed in the receptacles for the guests; among them were jesters, that related

tales of mirth and of sorrow; excellent players upon the harp, with others of inferior merit seated on various seats below them, who mimicked their performances, like apes, to excite laughter; behind them, at a great distance, was a prodigious number of other minstrels, making a great sound with cornets, shaulms, flutes, horns, pipes of various kinds, and some of them made with green corn, such as are used by shepherds' boys; there were also Dutch pipers, to assist those who chose to dance either "love-dances, springs, or rayes," or any other new-devised measures. Apart from these were stationed the trumpeters and players on the clarion; and other seats were occupied by different musicians playing variety of mirthful tunes. There were also present large companies of jugglers, magicians, and tregetors, who exhibited surprising tricks by the assistance of natural magic.

'Vast sums of money were expended in support of these absurd and childish spectacles, by which the estates of the nobility were consumed, and the public treasuries often exhausted. But we shall have occasion to speak more fully on this subject hereafter.' P. xxi.

We cannot follow our ingenious author through his elaborate account of the numerous and variegated amusements of our ancestors; but we were impressed, on the perusal, that what is called the old good humour of the nation may have been in a considerable degree connected with this variety of pastimes. There is no distinction more striking between ancient and modern times than in the national spectacles, games, and feasts of these different periods. In the present day we have but little of the merriment of our forefathers, and the common people are obliged to have recourse to drunkenness to get rid of *ennui*, or more frequently gloominess of ideas. In the Roman-catholic countries of the south of Europe, the religious system is recommended by grand spectacles and public processions; and mortifications are rare and occasional; while in Protestant countries there seems a perpetual lent without carnival, and we appear to be doing daily penance, notwithstanding our separation from the church of Rome.

'The English are particularised for their partiality to strange sights; uncommon beasts, birds, or fishes, are sure to attract their notice, and especially such of them as are of the monstrous kind; and this propensity of our countrymen is neatly satirised by Shakespear, in the Tempest; where Stephano, seeing Calaban lying upon the stage, and being uncertain whether he was a fish, a beast, or one of the inhabitants of the island, speaks in the following manner: "Were I in England now, as once I was, and had this fish painted, not a holiday fool there but would give me a piece of silver. There would this monster make a man: any strange beast there makes a man. When they will not give a doit to relieve a lame beggar, they will lay out ten to see a dead Indian." Indeed, we may observe, that a cow with two heads, a pig with six legs, or any other unnatural production, with proper management, are pretty certain fortunes to the possessors.

'They also take great delight in seeing men and animals perform such feats as appear to be entirely contrary to their nature; as, men and monkeys dancing upon ropes, or walking upon wires; dogs dancing minuets, pigs arranging letters so as to form words at their master's command; hares beating drums, or birds firing off cannons. These exhibitions, for all of them have in reality been brought to public view, are ridiculed by the Spectator, in one of the early papers of that work.' P. xxxiii.

Those amusements which were thought by the puritans to profane the Sabbath are afterwards illustrated. These people, generally themselves devoured by the crime of spiritual pride and ambition, affected to regard every recreation on Sunday as a crime of the deepest dye; while the Catholics more justly considered that day as a festival, and indulged the people with operas and other entertainments. The Protestant Sunday seems indeed to be observed in a direct spirit of contradiction to that of the Catholics, as it was the usual practice of the reformers to fly to the opposite extreme.

'In modern times, the penal laws have been multiplied, and much invigorated, in order to restrain the spirit of gambling; and in some measure they have had a salutary effect; but the evil is so fascinating and so general, that in all probability it will never be totally eradicated from the minds of the people. The frequent repetition and enforcement of the statutes in former times proves that they were then, as they are now, inadequate to the suppression of gaming for a long continuance; and, when one pastime was prohibited, another was presently invented to supply its place. I remember, about twenty years back, the magistrates caused all the skittle-frames in or about the city of London to be taken up, and prohibited the playing at dutch-pins, nine-pins, or in long bowling-alleys, when in many places the game of nine-holes was revived as a substitute, with the new name of *bubble the justice*, because the populace had taken it into their heads to imagine that the power of the magistrates extended only to the prevention of such pastimes as were specified by name in the public acts, and not to any new species of diversion.' P. xlvi.

Among the diversions of the English ladies, Mr. Strutt particularises needle-work and embroidery: but dancing was the chief amusement which was generally practised by the female slaves after evening prayers. Dice, chess, and drafts, were also among the female sports, nor was hunting uncommon. Thus far the introduction.

In the work itself Mr. Strutt begins with hunting, at first an effort of necessity, and afterwards of exercise and pleasure: the chase and the dogs of the ancient Britons are followed by those of the Saxons and Danes. The passion of several English monarchs for this diversion is afterwards mentioned; and

it appears that even the dignitaries of the church were, in the middle ages, greatly addicted to this pursuit.

'The ladies often accompanied the gentlemen in hunting parties: upon these occasions it was usual to draw the game into a small compass, by means of inclosures, and temporary stands were made for them to be spectators of the sport, though in many instances they joined in it, and shot at the animals, as they passed by them, with arrows. Agreeable to these manners, which custom reconciled to the fair sex, most of the heroines of romance are said to be fond of the sports of the field. In an old poem, entitled the *Squyer of lowe degre*, the king of Hungary promises his daughter, that in the morning she shall go with him on a hunting party, arrayed most gorgeously, and riding in a chariot covered with red velvet, drawn by

"Jennettes of Spayne that ben so white,
Trapped to the ground with velvet bright."

In the field, says he, the game shall be inclosed with nets, and you placed at a stand so conveniently, that the harts and the hinds shall come close to you.

"Ye shall be set at such a tryst,
That hert and hynde shall come to your fyst."

He then commends the music of the bugle-horn.

"To here the bugles there yblow
With theyr bugles in that place,
And seven-score raches at his rechase."

He also assures her that she should have

"A lese of herhounds with *her* to strake."

'The harehound, or greyhound, was considered as a very valuable present in former times, and especially among the ladies, with whom it appears to have been a peculiar favourite; and therefore in another metrical romance, probably more ancient than the former, called *Sir Eglamore*, a princess tells the knight, that if he was inclined to hunt, she would, as an especial mark of her favour, give him an excellent greyhound, so swift that no deer could escape from his pursuit.

"Syr, yf you be on huntynge founde,
I shall you gyve a good greyhounde,
That is dunne as a doo:
For as I am trewe gentylwoman,
There was never deer that he at ran,
That myght yscape him fro."

'It is evident, however, that the ladies had hunting parties by themselves, and we find them upon the second plate in the open fields, winding the horn, rousing the game, and pursuing it, without any other assistance: this delineation, which is by no means singular, is taken from a manuscript written and illuminated early in the four-

teenth century. We may also observe, upon these occasions, that the female Nimrods dispensed with the method of riding best suited to the modesty of the sex, and sat astride upon the saddle like the men; but this indecorous custom, I trust, was never general, nor of long continuance, even with the heroines who were most delighted with these masculine exercises. An author of the seventeenth century speaks of another fashion, adopted by the fair huntresses of the town of Bury in Suffolk. "The Bury ladies," says he, "that used hawking and hunting, were once in a great vaine of wearing breeches," which, it seems, gave rise to many severe and ludicrous sarcasms. The only argument in favour of this habit was decency in case of an accident. But it was observed, that such accidents ought to be prevented in a manner more consistent with the delicacy of the sex, that is, by refraining from those dangerous recreations.

'Queen Elizabeth was extremely fond of the chace, and very frequently indulged herself in following the hounds. "Her majesty," says a courtier, writing to sir Robert Sidney, "is well, and excellently disposed to hunting; for every second day she is on horseback, and continues the sport long."

'The hunting dresses, as they appeared at the commencement of the fifteenth century, are given from a manuscript of that time, upon the top of the second plate.' P. 9.

The citizens of London enjoyed also an ancient privilege of hunting with the lord-mayor's hounds; but their want of skill has been a subject of ridicule for many centuries. Mr. Strutt shows that wolves were still found in several counties of England so late as the reign of Henry VI. The various ancient terms used in the chase are afterwards illustrated.

The history of hawking forms the subject of another amusing chapter. The king's hawks were kept in the mews at Charing-Cross; the word *mew* signifying, in the language of falconers, the place where hawks are kept in their moulting season.—Horse-racing is the next topic.

'It was requisite in former times for a man of fashion to understand the nature and properties of horses, and to ride well; or, using the words of an old romance writer, "to runne horses, and to approve them." In proportion to the establishment of this maxim, swift running horses of course rose into estimation; and we know that, in the ninth century, they were considered as presents well worthy the acceptance of kings and princes.

'When Hugh, the head of the house of the Capets, afterwards monarchs of France, solicited the hand of Edelswitha, the sister of Æthelstan, he sent to that prince, among other valuable presents, several running horses, with their saddles and bridles, the latter being embellished with bits of yellow gold. It is hence concluded, and indeed with much appearance of truth, that horse-racing was known and practised by the Anglo-Saxons, but most probably confined to persons of rank and opulence, and practised only for amusement sake.

'The first indication of a sport of this kind occurs in the descrip-

tion of London, written by Fitzstephen, who lived in the reign of Henry the Second. He tells us, that horses were usually exposed for sale in West Smithfield; and, in order to prove the excellency of the most valuable hackneys and charging steeds, they were matched against each other. His words are to this effect: "When a race is to be run by this sort of horses, and perhaps by others, which also in their kind are strong and fleet, a shout is immediately raised, and the common horses are ordered to withdraw out of the way. Three jockeys, or sometimes only two, as the match is made, prepare themselves for the contest; such as being used to ride, know how to manage their horses with judgement: the grand point is, to prevent a competitor from getting before them. The horses, on their part, are not without emulation, they tremble and are impatient, and are continually in motion; at last, the signal once given, they strike, devour the course, hurrying along with unremitting velocity. The jockeys, inspired with the thoughts of applause and the hopes of victory, clap spurs to their willing horses, brandish their whips, and cheer them with their cries." P. 31.

But the present fashion of horse-races does not appear to be more ancient than the reign of James I., when Newmarket also began to rise into celebrity.

The first two books are short, in comparison with the others. The second, which begins at p. 38, opens with the history of archery, which our learned author details with his usual care: but we can scarcely assent to his position, that the Saxons and Danes used the bow merely as an instrument of the chase; since, however inclined to trust Mr. Strutt's accuracy, we believe that the Saxon bow was only inferior in length and power to that of the Normans. The progress of archery is afterwards illustrated, from the history of Robin Hood and other authorities.

In the second chapter of this book Mr. Strutt proceeds to the history of the sling, and seems to *hit the mark* with great precision. Several other exercises are also treated in this chapter.

'The game of quoits, as an amusement, is superior to any of the foregoing pastimes; the exertion required is more moderate, because this exercise does not depend so much upon superior strength as upon superior skill. The quoit seems evidently to have derived its origin from the ancient *discus*; and with us in the present day it is a circular plate of iron, perforated in the middle, not always of one size, but larger or smaller, to suit the strength or conveniency of the several candidates. To play at this game, an iron pin, called a *hob*, is driven into the ground, within a few inches of the top; and at the distance of eighteen, twenty, or more yards (for the distance is optional) a second pin of iron is also made fast in a similar manner, and two or more persons, who are to contend for the victory, stand at one of the iron marks, and throw an equal number of quoits to the other, and the nearest of them to the hob are reckoned towards the game. Having

cast all their quoits, the candidates walk to the opposite side, and determine the state of the play; then taking their stand there, throw their quoits back again, and continue to do so alternately as long as the game remains undecided.

'Formerly, in the country, the rustics not having the round perforated quoits to play with, used horse-shoes, and in many places the quoit itself to this day is called a *shoe*.' P. 59.

Olaf Fryggeson, p. 66, should be Tryggeson.

In the third chapter, Mr. Strutt proceeds to the hand-ball, and several other exercises with the ball. The balloon, or wind-ball, illustrated in p. 76, was mistaken, by a pretended antiquary, for the modern air-balloon. Cricket does not appear more ancient than the beginning of the last century. But we must reserve the remainder of this work for a future article.

---

ART. II.—*A Tour through Germany; particularly along the Banks of the Rhine, Mayne, &c. and that Part of the Palatinate, Rhingaw, &c. usually termed the Garden of Germany. To which is added, a concise Vocabulary of familiar Phrases, &c. in German and English, for the Use of Travelers. By the Rev. Dr. Render.* 2 *Vols.* 8*vo.* 16*s. Boards.* Longman *and* Rees. 1801.

THESE volumes should have been entitled, a Tour through a Part of Germany. The second is indeed chiefly composed of a kind of statistic view of the German empire, with several particulars concerning some towns and countries which may be found equally well told in our gazetteers and most common books of travels. Our author seems a regardless, but good-humoured traveler, and the occasional mixture of German phraseology will not injure the work in the candid eye. There is, however, as not unusual in German works, a great want of taste in the manner and arrangement. In general, we cannot regard German literature with the favourable eye lately acceded to it by many. In chemistry, mineralogy, and some other branches of science, the German writers deserve great applause, though usually addicted to prolixity, the great fault of all their compositions. But in history, poetry, and every branch of polite literature, they are only beginning their career; nor should we wonder if the works of the Wielands, and other satirists who published journals in their own praise, were, by posterity, classed among our black-letter buffoons of the reign of Elizabeth. We are far from entertaining the ideas expressed by a celebrated French author, that it is impossible for a German to be a man of taste or wit; but we cannot expect in German literature a miracle which has happened in no other, that the *belles-*

*lettres* should be cultivated with success at the very commencement of a literary progress. The German works which may have faintly aspired to the name of genius have not yet been tried by the voice of time; and such are the remaining marks of barbarism and prolixity, (the latter a most unclassical defect) that it will probably be long before Germany shall produce a classical author, admitted like those of England, France, Spain, and Italy, into universal fame. In short, we admire the Germans merely as disciples, but cannot venerate them as masters; nor can candour abstain from a smile, when a German critic pronounces the dictates of his own imperfect taste upon the works of more enlightened nations.

These reflexions forced themselves upon us during our perusal of the preface to the present work, in which our author has ventured to blame the generality of travelers as very superficial, while he, forsooth, imagines himself to be extremely profound. We believe, on the contrary, that much more may be learned from the travels of an English lady, Mrs. Radcliffe, than from this account by a native, which may justly be styled a superficial compilation. This instance, among many others, may show the presumption of the German critics, who, like forward boys, would attempt to teach their masters, and, while they themselves have scarcely burst the egg-shell of barbarism, instruct eagles how to fly.

But as our present author's failing is rather a ridiculous and good-humoured vanity, than that bold presumption of ignorance which ought always to be repressed by the critic's severest frown, we shall abandon the tone of censure, and endeavour to extract some amusement and instruction for our readers.

Dr. Render informs us, (p. 2) that in Germany traveling is generally computed by the *stunde*, or hour, each being about three English miles: yet the doctor does not recommend his accuracy when he informs us, in the same page, that the German empire contains 'twelve thousand' square miles, while in reality it embraces 197,000. He proceeds to observe that Germany does not produce either tea or coffee or sugar, (wonderful!) and that Rhenish wine is not the universal product of Germany; (more wonderful!) 'but the Rhenish wine is in general preferred to those of Hungary, France, Spain, and Portugal, if not all Europe." (most wonderful!) So much for German taste! We are also indebted to our author for the following observation, p. 37. 'It is not customary that lodgers are *taken in* or dine in coffee-houses in Germany as in England.' Our author should have consulted some English dictionary for the meaning of *taken in*. Travelers have often complained that they are *taken in*, and we are afraid that Dr. Render has *taken in* his publisher.

'The city of Francfort is much celebrated on account of two

fairs, which are held annually; at which time people from all parts are to be met there. One fair begins on Easter Tuesday, the other in the middle of the month of September, and each of them continues three weeks.

'It is impossible for me to give my reader a full and ample description of the fair at Francfort, without making this sketch too voluminous; suffice it therefore to say, that there is then a conflux of people from every part of the world. All the hotels, private houses, and even the adjacent villages, are filled with strangers. No private house is permitted to take in lodgers, except during the fair. At each of the *table d'hôtes* of the Red House, Roman Emperor, &c. it is not very unusual to meet with upwards of three hundred guests of different countries; Turks, Russians, English, Poles, Danes, Swedes, Dutch, Americans, &c. The usual dinner hour is one o'clock, and there are then to be seen people of all ranks and degrees; the nobility at that time mixing with the trades-people. The dinner, which consists of three courses, is served up in a most elegant and luxurious manner, the price for which, including a pint of wine and one large cup of coffee, is a guilder. At the inferior hotels it is somewhat less. They sup generally at eight o'clock, for which the charge is half a guilder. During the time of dinner and supper a most excellent concert is performed, by a band of the best musicians, occasionally accompanied with songs by ladies, who sometimes also play solos on the French horn. After supper the whole company join in singing popular songs, and each individual contributes to the general mirth and happiness of the company. Drinking of healths in Germany is entirely abolished. Any person inadvertently doing so, is obliged to pay a fine equal to two-pence, which is put in a small tin box placed on the table, for the benefit of the poor. No toast is allowed to be given by any person whatever. Every one has his small or large bottle before him, according to his fancy, and drinks as much or as little as he likes. Happy would it be, were this salutary law introduced into many other countries! Six months before the fair begins, Francfort is supplied from all parts of the world with foreign stores, manufactures, &c. either by water or by land, and may be called a general *depôt* of foreign productions. At the time of the fair, the wealthiest merchants in the German empire come to that city, and purchase by wholesale those articles which they afterwards sell again to such merchants as are not able to attend the fair: thus it is that Francfort market supplies almost all other places on the continent of Europe. Foreign merchants purchase for themselves, or order such articles as their country may demand. Many very rich people resort thither during the fair merely for the pleasure of seeing so numerous, yet so agreeable, a *mélange* of company. There are also operas, comedies, concerts, balls, exhibitions from all parts of the world, of wild beasts, and horsemanship. I once saw Mr. Astley and his troop there.' Vol. i. p. 46.

Leaving Mr. Astley in this good company, we are delighted to find the prospect brighten up a little in the remarks concerning the burial in churches (p. 66); but the following story seems to partake of German credulity.

'In the month of July 17**, a very corpulent lady died at *** in ****. Before her death, she begged, as a particular favour, to be buried in the parochial church. She had died on the Wednesday, and on the following Saturday was buried according to her desire. The next day the clergyman preached her funeral sermon; the weather was uncommonly hot, and it ought to be observed, that for several months preceding her death a great drought had prevailed, not a drop of rain had fallen, and consequently it was an uncommonly sultry season.

'The succeeding Sunday, a week after the lady had been buried, the Protestant clergyman had a very full congregation, upwards of nine hundred persons attending, that being the day for administering the holy sacrament. The weather still continuing very hot, many were obliged, during the service, to walk out for a little while to prevent their fainting, whilst some had actually fainted away. It is the custom in Germany, that when people wish to receive the sacrament they neither eat nor drink till the ceremony is entirely over.

'The worthy clergyman preached about an hour and a quarter; he then consecrated the bread and wine, which ought to be uncovered during the ceremony. There were about one hundred and eighty communicants. A quarter of an hour after the ceremony, before they had quitted the church, more than sixty of the communicants were taken ill, and several died in the most violent agonies; others of a more vigorous constitution survived by the help of medical assistance: a most violent consternation prevailed among the whole congregation and throughout the town. It was concluded that the wine had been poisoned, and so it was generally believed. The sacristan, and several others belonging to the vestry, were immediately arrested and put in irons.

'The clergyman on the succeeding Sunday preached with a great deal of enthusiasm, and pointed out to his congregation several others concerned in the plot. This enthusiastic sermon, I am sorry to say, is in print, as also the violent proceedings of the clergyman and the magistrate against many of the unfortunate people arrested.

'The persons accused underwent very great hardships: during the space of a week they were confined in a dungeon, and some of them even put to the torture, but they still persisted in their innocence.

'On the Sunday following the magistrate ordered that a chalice of wine, uncovered, should be placed for the space of an hour upon the altar, which had scarcely elapsed, when they beheld the wine filled with myriads of insects; and, by tracing whence they came, it was at length perceived, by the rays of the sun, that they issued from the grave of the lady who had been buried the preceding fortnight. The people not belonging to the vestry were dismissed, and four men were employed to open the grave and the coffin; in doing which, two of them dropt down and expired on the spot, and the other two were only saved by the utmost exertion of medical talents. It is beyond the power of words to describe the horrid sight of the corpse when the coffin was opened. The whole was an entire mass of putrefaction; and it was now clearly demonstrated that the numerous insects, both large and small, together with the effluvia which had

issued from the body, had caused this pestilential infection, which was a week before attributed to poison. I am happy to add, that, on this discovery, the persons accused were instantly liberated, and every atonement made by the clergyman and magistrate for their misguided conduct.

'Since that time the Germans have even begun to remove the burying-places a mile or two from every city or town, by which means they have abolished, or paved the way towards abolishing, all the nonsensical epitaphs and laughable inscriptions which generally abound in church-yards, and too often disgrace the memory they mean to celebrate; and have substituted for the offensive cemetery an agreeable kind of garden, more calculated to inspire calm devotion than sentiments of horror.' Vol. i. p. 67.

Our author proceeds to observe, that there are many public pumps in church-yards, in London and Cambridge.

The plan of general insurance, as practised in Germany, certainly deserves imitation. Every proprietor of a cottage is obliged to insure, so that each person's payment becomes very small; yet there is more than sufficient to defray any loss by fire throughout the principality. The surplus, instead of enriching individual companies, goes to the treasury of the state.

Dr. Render bears witness, vol. i. p. 97, that it is surprising how many salutary laws and regulations were introduced into Germany during the short but happy reign of the emperor Joseph II. Among these improvements is mentioned the abolition of what was called Blue Monday, and of that species of slavery formerly denominated in England villanage, which, according to our author, was, in the year 1782, crushed in every part of the empire, by a decree issued from the diet of Ratisbon. We wish, however, to know whether this decree was executed in distant regions; for example, in Mecklenburg. The doctor should have furnished us with minute information concerning the nature and consequences of this universal liberation.

This Tour through Germany relates only to a few western districts, and the parts most particularly described are Francfort, Mentz, and their environs. In noticing the latter city, our author observes, p. 166, that Guttenburg, the journeyman of Faustus, invented the art of blacking the letters in printing. We believe that the doctor, who seems to be most astonishingly ignorant whenever he speaks of literary affairs, must mean the art of making moveable types. His account of the Bergstrasse, or mountain-road, we shall transcribe.

'On our return from our long journey to Heidelberg, I conducted my pupils back to Mentz, through the Bergstrasse, which mountain-way commences from Heidelberg, as soon as you have crossed the Necker bridge, and extends as far as Eberstadt, about three miles from Hesse Darmstadt.

'More cheerful scenes of fertility cannot be seen than along this charming road. The most beautiful and best cultivated part of it is from Heidelberg to Bensheim, where it is about twenty-four miles in length, and twelve in breadth. The continual chain of hills and eminences on the right hand is covered with woods near the top, and nearer the plain with vineyards. The level road is all along planted with rows of walnut-trees, and surrounded on each side with fields and meadows of an exuberant fertility.

'The numerous walnut-trees which grow on the Bergstrasse and the Odenwald bring a considerable profit to the country; and the fruit, wood, and wine, their produce, is an inexhaustible store to the inhabitants. In one year they exported forty thousand rough-made walnut-tree musket-stocks from these parts to Saxony. They only cut down for this use those trees which bear little or no fruit; for the profit of the nuts produced by some is so great, that the proprietor would not sell a tree on any account whatever. They make an excellent oil from the nuts, which serves the country people instead of butter, and the inferior sort is used for lamps.

'The almond trade, of which great quantities grow along the Bergstrasse, is very considerable. A great number of chesnut-trees are interspersed among the vines in most of the vineyards.' Vol. i. p. 236.

Our author being a great admirer of Rhenish wine has given a minute account of the Rhingaw: but in this he has been forestalled by Mr. Gardnor, Mrs. Radcliffe, Dr. Cogan, and other travelers. Indeed, after their descriptions, his whole tour can claim little novelty; and we have often had occasion to be surprised at the identity of books of travels, which may be reckoned by thousands, while those that describe new and unfrequented routes may be counted by tens. Yet if a traveler have not explored several parts of a country not before described, it is a mere intrusion upon the public to repeat trivial remarks on trivial journeys.

The most interesting part of this book is, doubtless, that which delineates the present state of agriculture in Germany, and which we shall transcribe, as it may afford useful instruction to other nations, and that kind of instruction which must be most approved in political affairs, as not depending on uncertain theories, but on the immutable laws of practice.

'Agriculture, which is carried on with great industry, is not interrupted either by morasses or heaths. The farms are not so large as those in some parts of England, but they are much better cultivated. The Germans maintain that large farms would be the ruin of the country; and that gentlemen farmers, a description of persons at present quite unknown there, would be little better than petty tyrants towards the smaller, as well as towards the labourers. Whence do the occasional scarcity and dearness of all articles of subsistence arise, say they, but from those despotic gentlemen farmers, who retain the corn in their own hands till the poor are half starved? and if they

cannot obtain an exorbitant price for it, will rather let it be destroyed by vermin than bring it to market.

'The Germans consider it a cruelty that one farmer should hold more land than he is able to cultivate in a profitable manner with his family and three or four yearly servants, exclusive of day-labourers in the time of harvest. They also maintain that large farms would tend to check cultivation, deprive the industrious and laborious poor husbandman of his reasonable advantages, prescribe laws in the market, and ultimately to the entire ruin of the state. Hence in Germany large farms are never suffered; no person dare rent more land than he is able to cultivate with two ploughs; and whoever should even express a wish to have more, would be branded with the epithet *blutsauger*, *i. e.* "bloodsucker."

'I understand but little of agriculture myself, and will not therefore attempt to decide whether my countrymen are right or wrong. But the business is of so great importance to society, I am persuaded the reader will not be displeased if I enter at large into the opinions relative to this subject, which are most prevalent in Germany.

'In former times, the *einsiedler farmer*, *i. e.* "the gentleman farmer," ploughed with eight horses. Many of them commanded a territory of nine English miles in length, and three in breadth, and employed from twelve to fifteen horses besides in their tillage, which were far too many. The *hauster farmer*, *i. e.* "the middling farmer," chiefly depended on the former, who furnished him with a couple of horses, or four oxen, when he wanted them, to plough his ground, or was rather a kind of slave or underling to the former.

'This extraordinary greatness of many German farmers, in former times, before their abolition, gave rise to some considerations which deserve to be farther noticed.

'About fifty years ago, the peasants, or all sorts of country people in Germany, in general, were commonly divided into three classes; viz.

'1st, Those whose properties were too small to live upon, and who were obliged to serve others, in order to obtain a sufficient maintenance.

'2dly, Such as could depend on means, when supported with cattle and money in time of need by the affluent farmer, sufficient to pay their taxes, rents, &c. to maintain themselves and their family.

'3dly, Those who possessed three times more than was necessary for the convenient support of a family, and who, on account of the dependence of the former classes, were styled gentlemen farmers.

'In the year 1772, however, the greatest scarcity ever known prevailed throughout all parts of Germany both of corn and flour. This scarcity was more particularly felt in those countries where the large farms existed, in consequence of which many thousands of inhabitants perished in Saxony, and in every place where the exportation of those important articles was stopped. In the more plentiful countries, as Bavaria, the Palatinate, Suabia, the countries on the banks of the Mayn and Rhine, &c. flour had risen to such an enormous price as to render it extremely difficult to be procured. I remember in that part of which I was a native, and of all others the most fertile in Germany, situated between the Rhine and the Mayn,

the fertile Odenwald and Bergstrasse, bread was with difficulty obtained, excepting smoking from the oven. The reason was, that many hundred people barricaded the houses of the monopolisers and bakers, from which circumstance it came from the latter half baked. Notwithstanding the many commands and decrees issued by the regencies to the rich farmers, who had concealed great quantities of corn in order to feed the markets, no effect was produced, and it became still dearer. It was at length discovered, that they suffered the corn to perish rather than let it be sold at a just and fair market price, and that the monopolising farmers had given a mortal blow to the interest of the lesser farmers, the consequences of which proved highly prejudicial to the country.

'Commissioners were appointed by the states of the empire, in most of the principalities, to inquire more minutely into the affair, and to make a strict report on the cause of the scarcity, particularly in those countries where it was before unknown. After a due and strict investigation, all these evils were found to proceed, first, from the large farms; secondly, from the many millions of acres of waste land; thirdly, from the not having erected magazines in proper and different parts of the country, in order to store the crops of those years which were superabundant, similar to those that formerly were appropriated for the laying up of fuel, which, from the time of their erection, proved sources of the highest benefit to the people, by preventing wood from rising in the severest winters above a fair and moderate price.

'It appeared farther to the commissioners, that an inquiry should be made into the farming business, and that an abolition of the gentlemen farmers was expedient; that the land-tax should be made an equal rate, that each land-holder might only pay in proportion to the ground he held. The commissioners observed, that there existed a great political error, in making the peasant, who has not a sufficiency to support his family, pay as much in proportion as he who has a competency; for, first, they maintained that it was a political axiom, that three or four middling farmers are more valuable to a state than one rich monopoliser, although his capital may exceed that of the others; yet that, on the other hand, an equal partition of money and possessions in a state, were it possible, would be madness; still, under the conviction of that being impossible, every minister ought to conduct his administration as if it were not so. To prove the above positions, the commissioners argued thus:

'That the most unhappy countries are those in which the greatest riches and the greatest poverty are to be met with at the same time. Such a state cannot subsist for any great length of time; but one part of the inhabitants must become despots, whilst the other sink into slavery. When a fermentation takes place in such a country, persons really free are either thrown out or destroyed. One gentleman farmer gradually swallows up all the poor in the neighbourhood; he lends money on the land of the latter, seizes the occasion of a barren year to purchase cheap the little property of his neighbour, and, when he is not restrained by feelings of honour, practises innumerable artifices to get possession of any piece of ground which lies convenient for him. It was lamentable to see how these rich

bashaws, before their abolition, had found means to dispossess a whole community, and to become the tyrants of the neighbourhood. The commissioners dwelt upon this tyrannical conduct with all possible energy.

'Let us see how they estimated the advantages which a rich farmer could draw from his land, in comparison of that resulting to a middling or a poor one.

'1st. The latter must sell his produce as quickly as possible, and generally at a low price, in order to supply the daily necessities of his family.

'2dly. The middling farmer cannot keep the price up long, because he is in danger of being obliged to borrow money, and of losing by the interest as much as he could gain by storing his grain. But, on the other hand, the rich farmer can speculate, and seldom vends his commodities at the low price at which the others are obliged to sell the produce of their sweat and toil. He buys grain cheap from the poor people round about, or has, perhaps, previously advanced them the value of their crop; so that they must let him have it at his own price, and then he raises the grain in the market. By inundations, or hail-storms, the small farmer is frequently destitute of seed enough for the ensuing year; in consequence he is obliged to let his ground lie fallow; and when the rich man gets it into his possession, he cultivates it with double and treble profit, and becomes, at the expence of the poor, and of the state also, richer and richer, till at length, to the great injury of population, perhaps a dozen small farms are concentrated into one. The young gentleman, his son, who meanwhile is pursuing his studies, will not any longer continue in the country, but fixes himself in town, lets his lands, and adds another insignificant idler to the state. Ought not then the rich farmer to contribute something more to the state in return for those advantages which he derives from having his property so much better circumstanced than that of his neighbours?

'The commissioners have conceived it highly equitable, therefore, that taxes should be laid according to the different rank and condition of farmers. The poor farmer ought not to pay so much in proportion for a piece of ground as the middling, or the middling so much as the rich. On the contrary, the state should endeavour to relieve the poor till he becomes as thriving as the middling farmer, and to prevent him from aggrandising himself to the injury of population; and lastly, for the benefit of society at large, to abolish by degrees the gentlemen farmers, and let no man hold more land, to the injury of his neighbours, than he is able to cultivate.

'Since that period there scarcely exists a monopolising farmer, and every mean has been made use of to prevent these evils in future. Large magazines have been erected in every principality, &c. In the time of harvest they are filled with new corn, and the old is disposed of; and should there be more than is wanted, it is exported or manufactured to various purposes, namely, to make hair-powder, starch, Hollands-gin, &c. and such of a bad quality is used for fattening beasts with. If it so happens that the price of corn rises more than usual in the market, the magazines are immediately opened, and every individual is supplied with grain or flour at the lowest

market price. People are also furnished with good seed for sowing, which is advanced to them; and when the harvest is over, he may either repay it in ready money at the market price, or restore the *quantum* advanced.

'So it is likewise with all sorts of fuel. In the summer, the magazines are filled, and at all times people may be supplied with wood or coals at the ordinary price.

'About thirty years ago, a quarter of every province in Germany was lying waste and uncultivated. I remember myself having seen whole large stretches of waste land, which nobody thought proper to cultivate. Since the year 1772, all of it has been distributed, for the purpose of cultivation, to many thousands of invalid soldiers, who, with their wives and children, began first to improve it with potatoes and madder. At present there is hardly to be seen any waste land at all; and that which was made arable by them within the last thirty years now produces all sorts of corn and vegetables. Many individuals have now rendered their portion of such land given them as their own property for life, and without paying any taxes for it, into a sort of garden, inclosed with hedges.

'It was the same with regard to inclosures, which every man was obliged to comply with, and to form meadows into arable land, where it was thought expedient before the people were aware of the utility of inclosing and forming meadows into arable; a great obtsinacy prevailed, and many counties went so far as to resist the measure by force. However, government, confident of its utility, sent some companies of soldiers to enforce compliance, when some of the most violent opposers were put in irons for the space of several months.

'After some years relapse, when the inclosures were finished, and many meadows transformed into arable land, the country people saw the propriety of that wise measure, and have since been as much for inclosing their land as before they were against it. From that period many thousand meadows, more convenient for cultivation, have been made arable, which transformed land produces now the very best kind of wheat; consequently it happily answered the wished-for purpose, and ever since a general scarcity or dearness has not been heard of.

'In many counties, the peasantry, by the advice of the land commissioners, have introduced the "*stallfütterung*," i. e. feeding their cattle at home in their stables, which has had the most salutary effects. Those people who have done it truly maintain, that they now make twice as much butter and cheese as they did before, when they sent their cattle into the field, and they also make additional profit by the dung for the better manuring of their land.' Vol. i. p. 328.

After this long extract, which, we trust, will greatly interest our readers, we shall not enlarge on the remainder of the book. It is true (vol. ii. p. 96) that Reubens was born at Cologne; but as this was only a temporary residence of his father, he is rather regarded as belonging to Antwerp. In the statistical view of Germany, which occupies a great part of the second volume, there are several gross errors: for instance, we are told (p. 301) that the

electorate of Saxony produces diamonds, jacinths, rubies, amethysts, sapphires, and opals, not one word of which is true. The German vocabularies and little dialogues at the end will, however, be found useful.

---

ART. III.—*The History of Bath. By the Rev. Richard Warner.* 4*to.* 2*l.* 10*s.* 6*d. Boards.* Robinsons. 1801.

MR. Warner is already advantageously known by some amusing little tours to Wales. The present work, dedicated to the prince of Wales, is executed with considerable care, and will furnish some instruction and amusement to the invalids and other visitors of the celebrated city it describes.

Mr. Warner opens his history in the following manner:

'The difficulty of fixing the exact period when a city or town of considerable antiquity had its origin, has frequently tempted men, whose fancy was warm and judgement weak, to substitute fable for fact—the wild reveries of imagination in lieu of the sober details of authentic history. The city of Bath is an instance of this. Unable to ascertain with precision the æra when its waters first attracted attention, and induced their discoverers to settle around them, the monkish writers have adopted the most whimsical suggestions on the subject, giving it an antiquity far beyond what it really can claim, and dignifying it with an importance which never existed but in their own puerile pages.

'Mr. Wood, who seems to have had a marvelous passion for British archæology, and was never more pleased than when engaged with druids and arch-druids, following the wanderings of Brute, tracing Pythagorean circles, or ascertaining the site of Celtic monopteric temples, adopted all these idle tales, and introduced them into his "Essay towards a Description of Bath," published about sixty years ago. From this work we shall just extract the legendary account of the city of Bath, and its renowned author, king Bladud, apprehending that, in an history of this place, it may be necessary to detail as well what *has been* as what is *now* believed respecting its rise. For this purpose we must direct the reader's attention to the rambles of Brutus, with whose adventures Bladud is connected; being, according to tradition, the ninth in descent from the great grandson of Æneas.' P. 1.

But we must not follow our author through the rest of the narration, which he justly ridicules. He afterwards proceeds to mention the settlement of the Belgæ in the south of England; but we do not implicitly trust Dr. Stukeley, nor the Hædui, though the latter may very likely have been a tribe of the Belgæ. In the next chapter Mr. Warner proceeds upon more certain ground, in the Roman history of Bath, which begins with the arrival of Claudius; for, by a singular chance,

that most stupid of the emperors triumphed, for the only time in his life, in consequence of a victory over the Britons; that is, by accomplishing what the great Cæsar had attempted in vain.

'During the period of Claudius's command we may look for the origin of Bath, since it appears, from many testimonies, that his troops were for some part of the time in the neighbourhood. Whilst they continued here, it was hardly possible that so singular a phænomenon as the hot springs of this valley should escape their observation. Extremely curious with respect to natural appearances, the bituminous cuticle covering the surface of the morass, and the warmth of the waters stagnating under this mantle, would catch their attention; an immediate investigation of the causes of these phænomena would take place; and the mineral springs, which had hitherto burst unnoticed from the ground, and wasted their medicinal virtues on the desert around, would be at length discovered, cleared, and collected together.

'Addicted as the Romans were to the use of the tepid bath, this discovery must have been considered by them as a very important one, and would immediately tempt them to form a permanent station on the spot where it occurred. This they would probably be further instigated to by Scribonius, the physician of Claudius, and his companion in this expedition, who seems to have entertained an high opinion of the efficacy of warm-bathing, and prescribed it as a specific in certain disorders. His advice induced them to forego their usual principles in the choice of situations for camps, and, instead of choosing any of the surrounding hills, to build a town in the morassy hollow of a close vale.

'As the stay of Claudius in these parts was very short, he would merely have time to give directions for cleansing and collecting the springs, and securing the treasure by the erection of a city on the spot where they issued from the earth. His imposition of the Greek name (in which language he was skilled) ὑδατα θερμα, *warm water*, in allusion to the natural wonders of the place, before he left the army to return to Rome, would follow of course.

'Admitting the above suppositions to be probable, we arrive at the origin of Bath, and may fix the building of the first town on the spot about the year of our Lord 44, exactly seventeen hundred and fifty-five years ago.

'The legions that composed the British army of Claudius were the second, the ninth, the fourteenth, and the twentieth. Of these forces a large body was sent, under the command of Vespasian, (after the submission of the *Hædui*) against the *Silures*; another proportion continued its operations against the *Belgæ*; whilst a detachment of the second legion was left at the hot springs, to pursue the directions of Claudius, and build the projected town. These labours were commenced, therefore, by the legionaries tracing out a pentagonal line, approaching to an irregular parallelogram, about four hundred yards in length from east to west, and three hundred and eighty yards in the broadest part from north to south; the hot springs forming the central point of the inclosed area. On this line they constructed a

wall, rising twenty feet above the ground, and gradually lessening in thickness from sixteen feet at the foundation to eight feet at the summit. This wall was strengthened with five angular towers at the corners, and accommodated with four gates, facing (according to the Roman practice) the four cardinal points, and communicating with each other by two rectilinear streets, which intersected each other in the centre of the city, and divided it into nearly four equal parts. Fortunately for the lovers of antiquities, some remains of these walls were discovered about five years ago, in digging an excavation for certain intended buildings on the site of the borough-walls, opposite to the hospital; and from what was then laid open, it evidently appeared that the whole work had been finished in a style of incomparable masonry. At the depth of eleven feet the workmen reached the foundations of the old Roman walls, forming the bed or basis of those of later date. They appeared to be about fifteen feet in thickness, widening gradually as they descended, of extreme hardness, and the most compact consistency; their construction was that which Vitruvius calls *diamicton*, consisting of two front faces, or outer coats, with an interval of several feet between them. Of these, the former were composed of a grit-stone, probably brought from afar, as no stone in these parts is nearly so hard. The latter consisted of rubble-stone, the interstices filled up with that liquid lime, hardening into an adamantine substance, for which the Roman masons were so deservedly famous; forming a whole of such tenacity and strength, as promised not only to resist all the violence of man, but to baffle the more destructive, though more gradual, ravages of time itself.' P. 19.

Our author then subjoins an account of the discovery, in 1755, of the Roman construction in the hot-baths, which must have been far superior in elegance to the present erection. Any learned visitor is indeed impressed with the idea that the baths themselves might be greatly improved in convenience, utility, and decoration; and it would be an object of curiosity to invite English and foreign architects to offer new plans, in which the water used for drinking should, upon a simple and obvious principle, be easily distinguished from that used for bathing, instead of the mystery which now attends the whole appearance. The natural ebullition of the waters ought also to be carefully exhibited as the principal phænomenon; while, on the present plan, it can scarcely be distinguished from the effect of leaden pipes. There is certainly a preposterous taste in these and some other architectural objects of this otherwise charming city. There ought, moreover, to be no burial-ground in the vicinity of the baths; and the soil should be dug up and removed to a considerable depth.

To Mr. Warner's explanation of the Roman antiquities lately found at Bath we cannot assent. It has often struck us as surprising, that almost every man pretends to be a judge of ancient monuments, while, in fact, the study requires immense

learning. Our author's remarks in this and a former work on the subject are consummately trifling; and when we visited the monuments, we found that he had not been able to read the inscription, as it appears, in conjunction with other instances, in the goddess SUL, the dative *Suli* being perfectly clear upon the stones, where Mr. Warner always adds another syllable. This goddess *Sul* appears to be a relation of the *Hermin Sul* of the Germans; and we suspect some connexion with the German *seele*, old English *sele*, (*health* or *happiness*) and our English *soul*; but we have not time to look into Wachter and other German etymologists.

A foolish story is told at Bath and Bristol, that a Scotsman having applied to James I. for a bishopric, the king inquired whether he would choose Bath or Wells? the petitioner answered, in broad Scotch, *bath* (*both*); upon which they were conjoined. But this conjunction happened far more anciently.

'In this lamentable condition Bath continued till the year 1090, when the munificence of a foreign ecclesiastic restored it to its former consideration. From the time of the Confessor, Normans and Frenchmen had been encouraged to settle in different parts of the kingdom, a practice which had increased to a pernicious extent under William the Conqueror, who held out a variety of advantages to such of his former subjects as would quit their native country, and follow their fortunes in England. Some of these adventurers, it seems, had settled at Bath; and amongst the rest, one John de Villula, a native of Tours in the province of Orléannois in France. This man, though nothing more than an empiric, had found means to accumulate a large fortune by practising physic, and imposing upon the ignorance and credulity of the invalids who flocked to the healing waters of this city in search of ease and health. To preserve the treasures which he had thus acquired was his next object; and aware that the profession of the church offered the best security for temporal possessions in these days, equally remarkable for the violence of rapine and the spirit of superstition, he became an ecclesiastic, and, by the proper application of part of his money, shortly afterwards obtained the see of Wells. Discontented, however, with a situation that tied him to residence in a town which for many reasons he disliked, and looking still with grateful partiality towards Bath, the scene of his former experiments and success, he determined to remove the pontifical seat from Wells to that place; to unite the bishopric of the former with the abbey of the latter; to re-build the city; and, on the ruins of the dilapidated monastery, to erect a similar establishment of greater extent and superior splendor. To effect this design, nothing but the consent of the crown was requisite, which at that period might easily be obtained by a pecuniary bribe, proportionate to the magnitude of the favour solicited. The needy Rufus could not resist a tempting offer of five hundred marks, and John de Villula received a grant from him of the whole city of Bath, the church and abbey of St. Peter, the mint, the baths, rights, customs, tolls, &c. thereunto appertaining, in pure and perpetual alms, for the augmentation of the see of Somersetshire. John, having thus obtained his

wish, proceeded to the execution of the splendid plan which he had long had in contemplation; he re-built the monastery and church from their foundation, and restored the houses of the citizens which had been burnt or overturned; becoming thus, as it were, the second founder of Bath, and raising a new city out of the ashes of the old one.' P. 62.

The royal revenue of a tenth, &c. seems rather to have been of the annual income than of the property.

'Bath preserved its loyalty even under the reign of the dark, malignant, ill-omened bigot, James the Second; and when the gallant and the gentle duke of Monmouth, who came to free his country from the iron tyranny of the reigning prince, appeared before the gates of the city, its inhabitants refused him admittance within them. A small party, indeed, appears to have been in his favour, the individuals of which were afterwards tried by that relentless blood-hound judge Jefferies, and suffered the horrid punishment denounced by law against those guilty of high-treason. The warrant under which these unfortunate men were executed, runs as follows:

'SOMERSETSHIRE. { "Edward Hobbes, esq; sherreife of y^e countie aforesaid, to the con^ble^s and other his ma^ties officers of the cittie and burrough of Bath, greeting: Whereas I have rec^d a warr^t under the hand and seale of the right hon^ble the lord Jeffreys for the executing of several rebells within yo^r said cittie, These are therefore to will and require yo^w immediately on sight hereof to erect a gallows in the most publike place of yo^r said cittie to hang the said trayto^rs on, and that yo^w provide halters to hang them with, a sufficient number of faggots to burne the bowells of fower traytors, and a furnace or cauldron to boyle their heads and quarters, and salt to boyle therewith, halfe a bushell to each trayto^r, and tarr to tarr y^m with, and a sufficient number of speares and poles to fix and place their heads and quarters: and that yo^w warne the owners of fower oxen to be ready with a dray and wayne and the said fower oxen at the time hereafter mencioned for execusion, and yo^w yo^rselves togeather with a guard of fortie able men att the least to be present on Wednesday morning next by eight of the clock, to be aiding and assisting to me, or my deputie, to see the said rebells executed. Given under my seal of office this 16th day of November, A° 1° Jacobi Secundi 1685.

"EDWARD HOBBES, Vic."

"Yo^w are alsoe to provide an axe and a cleaver for the quartering the said rebells."

'A powerful attachment to the house of Stuart was cherished here for several years after that ever-memorable epoch, when the glorious revolution banished it for ever from the throne of these kingdoms, and established and confirmed to us and our descendants the free exercise of our rights and liberties, both civil and religious. Strongly tainted with Jacobite principles, a numerous junto which subsisted at Bath in the early part of the present century, secretly befriended

the cause of the Pretender, and when the rebellion burst out in 1715, took very active measures to aid the insurrection that was then fomenting in the western counties. We are concerned to relate, that a well-known literary character, who blended the merits of an elaborate historian with the profession of a divine, made a conspicuous figure in this confederacy; Mr. Carte, the minister at that time of the parish of St. Peter and St. Paul. With his privity, and probably under his direction, an extensive plot had been hatched and matured, and a quantity of arms collected in the house of one Ferguson of Bath; but the vigilance of government detected this nest of vipers before their machinations could be carried into execution; and Mr. Carte was content to save his neck, and escape from those who were sent to apprehend the conspirators, by leaping out of a window, dressed in his canonicals *. P. 96.

The minute history of the abbey would little interest our readers: that of the bishops opens in the following terms:

'As our plan does not include an account of the prelates of Wells previous to the incorporation of Bath with that see, we commence the list with John de Villula, the first bishop of the two united cities. Much of his history, indeed, has been anticipated in the former part of this work, and we have already remarked, that, through his dislike to Wells, he solicited and obtained leave to attach the abbey of Bath to that bishopric, and to remove the pontifical seat thither also. This he did without consulting the monks of Wells, and of course drew upon himself their extreme indignation. He had, indeed, roused it in some degree before, by demolishing a noble cloister, and many other buildings erected for their use by his predecessor, bishop Giso, and covering the site of them with a magnificent palace for himself and his successors. But the severest blow upon these ecclesiastics was his renouncing Wells altogether, when he had purchased the town and monastery of Bath, and taking upon himself the title of Bishop of Bath; a step that excited such heart-burnings and jealousies as could only be allayed by a subsequent arrangement of including Wells in the episcopal title, and making that city, jointly with Bath, the seat of the bishop. John, having filled his seat thirty-four years, died on the 9th of December, 1122, and his remains were deposited in the church of St. Peter at Bath, which he had built from the ground.' P. 137.

Mr. Warner should not have implicitly followed Dr. Brady's opinions concerning the ancient boroughs, as that writer was a tool of power, and his opinions have been confuted by more liberal investigators. The stone used in building at Bath is not a lime-stone, as asserted in p. 219, but a free-stone, or, in other words, a calcareous sand-stone, filled with many small petri-

'* For this anecdote, and others which will occur in the course of this work, I am indebted to Dr. Harrington.'

fied shells. The description of modern Bath is distributed into parishes. One passage we shall select.

'The Bath and West of England Society for the Encouragement of Agriculture, Arts, Manufactures, and Commerce, and which, under the skilful direction, persevering activity, and judicious management of Mr. William Matthews, the late secretary, has risen to an acknowledged superiority over every other establishment of the same nature in Europe, was instituted about twenty years ago. Mr. Edmund Rack, a resident in Bath, but a native of the county of Norfolk, had the honour of first suggesting and marking out the plan in 1777. This gentleman, who possessed considerable talents and literary abilities, having brought from his native county, long famous for agricultural excellence, ideas of husbandry superior to those which generally prevailed in the West, conceived that a society for promoting rural improvements would be highly advantageous to this part of the nation. Early, therefore, in the year above mentioned, he stated his ideas of such a society in an address to the public, through the medium of the newspapers, proposing a meeting of those gentlemen who might approve of the plan, and wish to encourage it. In consequence of this address, twenty-two persons met at York-House, on the eighth of September, and, though they consisted but in part of country gentlemen and manufacturers, the subject was seen to be of such general importance, that they immediately subscribed for defraying present expences, and resolved to support the ingenious advertiser in his further exertions. The next advertisement brought together, at the Lower-Rooms in Bath, a numerous company of gentlemen and others, who felt themselves interested in the objects held forth, and resolutions were formed for the immediate establishment of a society for the encouragement of the various objects now pursued, but chiefly within the counties of Somerset, Wilts, Glocester, and Dorset. The earl of Ilchester was appointed the first president, with twenty-four vice-presidents; and committees were formed for the different departments. Mr. Rack was appointed secretary, with a small salary of 50*l.* per annum, and an allowance of 30*l.* more for the occasional use of rooms in his house. Thus arranged, the society proceeded to the objects of its institution; printed, and annually continued to print, its rules, regulations, and premiums; holding periodical meetings, and gradually increasing in reputation and usefulness. In 1780, on the resignation of the earl of Ilchester, the earl of Ailesbury was appointed president, which office he held till the annual meeting of 1798, when, from motives of personal convenience, he resigned, but continued his liberal support as a patron. The duke of Bedford is now president, whose laudable pursuits in private life are so congenial to the principles on which this society is established, and must be considered as adding great respectability to the institution, if political independence, patriotic virtue, and liberality of spirit, can dignify what it encourages. The first secretary conducted the affairs of this society for ten years, till his death in 1787; during which period were published three octavo volumes of "Letters and Papers," which were well received by the public. In his place Mr. William Matthews,

of Bath, was appointed secretary, who held that office till the beginning of the current year 1800, when, to the great regret of the society, and the loss of the public, he resigned his situation; (having shortly before obtained an augmentation of the salary from 70*l.*, to which it had been raised just before the decease of his predecessor, to 100*l.* per annum;) and was succeeded in his situation by Mr. Bartley, the present secretary. During this interval of thirteen years, the society had gradually increased in its numbers and reputation, and had published the six remaining octavo volumes of its "Letters and Papers," forming altogether an important addition to our national literature; since they contain a greater quantity of authentic and useful information on subjects of agriculture, arts, manufactures, and commerce, than can be found in any other work in our language.

'After this society had existed about fifteen years under its first title, restricting its operations chiefly to the four counties before mentioned, it assumed, as more appropriate to its consequence, the title of "The Bath and West of England Society," by which it is now distinguished. Its number of members, till of late years, was not so large as might have been expected, but it is now augmented to nearly five hundred subscribers and members for life. The income arising from such subscriptions appears to have been nearly expended annually in the premiums, salaries, and various labours of a society, that may, without compliment, be now ranked among the most active, liberal, energetic, and extensively useful, of any which exist in this country. It usually holds from six to eight chief meetings in the year, besides numerous committees; and its great annual meeting in December has, for many years, become famous for the resort of noblemen, gentlemen, farmers, manufacturers, and artisans, interested in various improvements—but chiefly those who consider as of first importance the greatest improvement in husbandry and farming stock.' P. 312.

In his fifth chapter Mr. Warner proceeds to give an account of the public baths, in which we shall not follow him; nor shall we in his account of the amusements—a topic rather anticlerical. By the bye, the division of the work into parts, sections, and chapters, seems sufficiently confused, while plain chapters might have done just as well; but perhaps our reverend author was afraid of chapter and verse. The analysis of the waters seems to be given with great care; and, as mineralogy is a recent study, we shall extract a part.

'In the high grounds which rise on every side of the city, the strata and their accompaniments are generally as follow:—

'Immediately under the vegetable mould lies a stratum of shallow laminated stones, consisting of a mass of fossile shells, which are chiefly *anomiæ*, with a calcareous cement, in many places thin enough to serve the purpose of tiles for covering houses, and in other situations of sufficient thickness for paving the streets; taking a polish similar to the stone which is dug up in the Forest of Dean, in Glocestershire, where it is called *forest-marble*. This stratum covers

the upper bed of free-stone, or *oölite*, (a granulated stone, consisting of egg-like particles) which is of great depth, and divided into strata of considerable thickness: these are again sub-divided into rectangular blocks, by fissures perpendicular to the strata, which supply the beautiful material (called *ashler*) used in the buildings of Bath. The grain and composition of this stone vary considerably in different beds, the superior being more full of animal remains than the others; its upper surface is honeycombed with the perforations of the *pholas*, as its interior mass is with the *amygdaloid*—the nidus of a bivalve or trivalve fish inhabiting the rocks, enveloped in the same oval incrustation surrounding its shell, as we see it at present inhabiting the rocks of our coast.

'In the lower strata are found petrified and crystallised shells of a large oyster, of the *pecten vulgaris* and *pecten monotis* (common and one-eared scollop) of a very large size; and a thin bed of tubipore-coral of two distinct species, with their pores filled with spar. Under this free-stone rock lies a bed of blue clay, containing rhomboidal selenites; another of yellow clay down to the fuller's-earth, which, although but a thin stratum, is visible every-where round Bath, by the slips on the declivities of the hills, occasioned by the springs of water which flow out upon it. This is followed by a very deep bed of imperfect or bastard fuller's-earth, which abounds with casts or impressions of high-waved and striated *cardia*, *mytili*, *nuclei* of the *mytilus*, and various species of *anomiæ*. Upon this rests a second rock of free-stone, or *oölite*, about half the thickness of the upper rock, the upper stratum of which somewhat resembles the forest-marble, but its substance throughout differs from the upper rock in hardness and durability; neither resisting the frost, nor bearing so well an exposure to the elements. It contains *belemnites*, *nuclei* of *cochleæ*, *strombi*, *mytili*, (particularly that species of the latter called the *mytili hippocephaloides*) *cardia echinata*, (fibrous shell resembling *amianth*) and a stratum of petrified coral (the *madrepora ramosa* of Ellis) in some places eight feet thick. In the lower stratum of this rock lie *nuclei* of the *cornua ammonis* and *nautili*; and the great scollop, resting upon the thick bed of sand beneath, which is to be known by its large, irregular, loose stones, called sand-burs; as is the stratum of blue and marl below it, by the pyrites and ochre-balls it incloses. As this stratum of marl throws out the lower set of springs, it is probable the pyrites and ochre-balls contained in it may occasion the mineral waters of Lyncombe, Middle-Hill, and others in the neighbourhood of Bath; under this marl is dug the blue and white *lyas*, a calcareous stone with a mixture of clay, which resists the frost but imperfectly, yet is found to be the best material for pitching and mending the roads, and for burning to that brown lime which forms the best cement under water.

'The *lyas* descends to the bed of the Avon at Twerton; and in the clay which separates the beds of it are found abundantly *gryphites*, *belemnites*, *pectines inæquilaterales*, (which display the shell retaining its colours as perfectly as if recent) *anomiæ*; *asteriæ*, or fragments of the *encrinus*; *dentalia*, and *bufonites*; *vertebræ*, and other bones; *nuclei* of *nautili*, and *cornua ammonis*; (of which latter some retain

portions of the shell, exhibiting the beautiful variegations of mother of pearl;) crustaceous fish of the crab kind, &c.

'The fibrous shell mentioned above is found in both the free-stone rocks, but more plentifully, and of larger dimensions, in the lower. The formation of this shell in fibrous *striæ*, so opposite to the laminated plates which compose the habitation of the oyster and most other shell-fish, seems to be the distinctive character of the crustaceous tribe. It is so brittle as rarely to be found in large specimens; and from the difficulty of judging by smaller fragments, it has long exercised the ingenuity of fossilologists to ascertain its origin; but from a perfect specimen of this petrefaction lately found, (in the possession of the Rev. Mr. Richardson) about nine inches long, having both shells and the hinge entire, it appears to be an oblong muscle, in shape resembling the *pinna marina*, and of a species at present probably unknown. The strata which we have enumerated are everywhere regular and parallel, dipping to the south-east in the same angle from the summit of the hills down to the lyas, which itself lies more horizontal, though its dip be in a similar direction.

'The neighbourhood of Bath furnishes also a large quantity of that valuable native fossil, coal; which runs to the southward as far as Mendip, continues on the Wiltshire side till it approaches the chalk, and stretches away into Glocestershire, beyond the city of Bristol.' P. 394.

The account of the canal is curious and interesting, and deserves to be admitted into the text, where it would have been more pleasing than extracts from old registers and other antiquarian trumpery.

The Appendix is very large, and contains many ancient and modern charters. At the end, Mr. Warner reprints his observations on the ancient monuments found at Bath about ten years ago. Governor Pownall and himself are remarkably well met, and it is difficult to say which is the more foolishly learned. We shall not stop to examine the chamber utensils of queen Zenobia, but shall remark in passing, that we stared at *Medusa* with our own eyes, and found her to be a man, as the beard is in the usual place. From the whole character of the head, we had not the smallest doubt that it represents Æsculapius; though, by an uncommon arrangement, which may probably, nevertheless, be observed in gems or other ancient monuments, the serpents, his usual companions, are intertwisted in his hair. The *Sulinis* and *Sulini* of Warner (App. pp. 115, 116, 117) are totally false, as we have already observed; the inscriptions, which we repeatedly in spected and faithfully copied, bearing *Suli* alone.

These, however, are trifles; and, upon the whole, Mr. Warner has done himself no discredit by this quarto volume, which must be very interesting to the visitors of Bath. We should ourselves have been glad of such a companion, as the Bath Guides are trifling and unsatisfactory.

ART. IV.—*A general Account of all the Rivers of Note in Great-Britain; with their several Courses, their peculiar Characters, the Countries through which they flow, and the entire Sea-Coast of our Island; concluding with a minute Description of the Thames, and its various auxiliary Streams. By Henry Skrine, Esq. LL.B. 8vo.* 10*s.* 6*d. Boards.* Elmsly. 1801.

THE idea of this work is laudable; nor do we remember any good detached history of the British rivers since that which was prefixed to Holinshed's Chronicle, which, for the time when it was written, deserves particular approbation; and we are rather surprised that our present author has not availed himself of that interesting performance.

In his preface, Mr. Skrine refers to his introductory chapter for an account of his plan.

'The notes from which these descriptions were extracted are few, and such as were taken in the successive travels of various years, the author having rather depended on his memory and observation than on any written documents of his own, except in some particular points. A manifest variation in the mode of expression naturally arises from this circumstance, and it is sometimes introduced purposely as the subjects themselves change, to prevent the tedious uniformity which would result from all the objects being treated with the same monotonous similarity of description. The number and the person are also altered in the same manner, and for the same reason, as in the author's former works; but the deviations from the present tense are, from the nature of this pursuit, less frequent. It seems also requisite to deprecate the censure that may critically be thought due, for such repetition of epithets and other words, with various other inaccuracies, which, on ample revision, may have yet escaped the notice of one, whom even experience has failed to render adroit in correcting for the press.

'In the extensive line pursued by this work, and in the comprehensive treatment of the whole, the author would place its only claim to merit, for few have had the leisure or patience to intersect almost the whole of our island so frequently. Perhaps nothing but the degree of health he at times recovered, and of pleasures he always found from these scrutinies, (which would tire out the perseverance of many) could have kept up a sufficient degree of animation and interest, especially when the subject happened to be trite and dry, or the weather adverse. Neither can he, after all his pains, flatter his vanity with the idea of having executed any thing like a perfect picturesque survey; being aware that various points may have mis-led him, especially in the disputed origins, as well as the sudden turns and occasional bearings of rivers; but these can hardly be of much consequence, as he has laboured to be correct in the general line of their course, and the delineation of their particular features. The descriptive parts must always in a great degree depend on the medium through which their subjects were seen, on which weather, and acci-

dental bursts of light and shade, as well as time of day, have a strong influence occasionally.

'Want of good local information has in some distant points created a perplexity; and in the northern extremity of our island, which is very difficult of access throughout, the best oral and traditional information that could be obtained has been resorted to, together with such maps and local publications as the author has recommended in his former travels, or met with since, as relating to the present object of his pursuit.' P. v.

He then observes, that he has prefixed to each chapter a small map of the rivers mentioned, and that the course of his work proceeds from the mouth of the Thames to the northern extremity of Scotland; whence he returns by the western and southern coasts.

In his introductory chapter, our author states that the numerous objects which diversify the banks of rivers suggested to him the idea of this work. After some illustrations of his plan, he thus proceeds:

'I have sometimes treated the component branches of great rivers as separate streams, and at others as connected with the main subject, wishing to throw as much variety as could be introduced, without confusion, on a part of the work in which there must be a certain degree of sameness. The characters of the rivers themselves, and the scenery attendant on their banks, form of course the pleasantest part, both to the reader and the writer; nor is there any difficulty in excluding sameness, where all the profusion of nature, and the accidental circumstances of canals, manufactures, population, and ornamental works, induce a perpetual variety.

'In some few places, and particularly in the chapter which concerns the Thames (as being more diffuse than the rest), I have taken the liberty of commemorating a few spots endeared by local circumstances, and the remembrance of some worthy characters which adorned them, and created their peculiar interest to me.

'Impelled by grateful memory of the pleasures derived from a long course of attentive kindness, I could not but indulge this sensation here, as I have occasionally done before; but I have been cautious in avoiding a repetition of what my former works contained of this kind, even when the same ground presented itself.

'I have also attempted to be brief, though explicit; nor may these little episodes be deemed altogether inappropriate, and it is probable they may introduce at times a welcome interval of variety; the impressions from which they arise remain indelible on my mind, and the spots they regard seem consecrated by the many hours of happiness they bestowed on me during those years in which the powers of observation and reflexion are best seconded by those of fancy, imagination, and animation.' P. 11.

He begins, in his second chapter, with the rivers of Essex; and his account of the various streams seems sufficiently accurate: but the author might have enriched his work

with several historical anecdotes, not to mention numerous tales of private life, connected with rivers, and which might have lent additional diversity and interest to his publication.

'The Witham rises near a village of that name, about ten miles north of Stamford, and pursues a line deviating but a little from the north by Grantham to Lincoln; it then turns eastward, and, joined by a stream from the wolds in the north, proceeds southward through the fens to Tattershall, where it is met by the Bain from Horncastle, and afterwards to Boston, soon falling into the great bay between Lincolnshire and Norfolk, at the mouth of the Fossdyke Wash.

'The course of this river is not so striking as that of either of the two last, but its banks at first are not unpleasant; it passes also several considerable objects in the high spire of Grantham, lord Brownlow's neighbouring seat at Belton, and that of sir John Thorold at Syston. Its approach to Lincoln is very remarkable, whose magnificent cathedral covers the summit of a high mount, rising in three lofty towers, two of which are crowned with spires, from which the city descends in a steep street to the bridge. The Witham, even in the centre of the most dreary fens, is graced with the bold ruin of Tattershall castle, and the elegant Gothic pile of Boston church, from whose lofty tower the prospect is nearly boundless over the immense levels which encompass it, where the churches are almost too numerous to be counted, and where the distant cathedrals of Peterborough and Lincoln are at once visible. The Witham is defended against the incursions of the sea by a curiously-constructed sluice, just before it reaches Boston, which is a well-built town, and may be called the principal port of this vast tract, possessing a considerable trade. This is the last of those numerous streams which contribute to form the great gulf between Lincolnshire and Norfolk, the deeps of Boston being at its mouth, nearly opposite to those of Lynn, across the bay. The two washes of Cross-Keys and Fossdyke penetrate into the country near its centre, at the mouths of the Nen and the Welland, over the sands of which a dangerous road is pursued at low water, near the little town of Holbech, on each side of which a small stream flows towards the sea. The coast of Lincolnshire, north of Boston, is not distinguished by any memorable streams to the mouth of the Humber, the rivers which reach the sea at Wainfleet and Saltfleet being inconsiderable, though the latter is navigable to Louth.' P. 32.

The account of the Trent is particularly interesting; but we proceed to the other tributary streams which form the Humber.

'The Don rises in the high moors of Yorkshire, adjoining to Derbyshire, not far from the dismal hamlet and public-house of Wood-End, at the junction of four roads in that dreary waste. It takes a south-eastern line to Sheffield, and then turns to the north-east by Rotherham to Doncaster; soon after which it alters its course to the north at Thorne, and then to the north-east again,

joined by the Went, from the interior of the West-Riding, to meet the Northern Ouse at Goole in one branch, and the Aire below Snaith in another.

'Except among the moors which form its source, the Don is not a rapid river, and the first part of its course only is through a wild country. The great manufactures of Sheffield and Rotherham flourish on its banks, and cover all the adjoining country with their works. The vale it forms to Doncaster is extremely beautiful, and ornamented with many fine seats; the hills also above Rotherham, towards the north, are covered with the spreading plantations, splendid mansion, and high ornamented buildings of lord Fitzwilliam, at Wentworth. The terrace in Mrs. Finch's finely wooded park at Thrybergh commands the vale in great perfection; and, a little lower, the picturesque ruin of Connisburg castle, on a high wooded rock, is nearly encompassed by the river. Doncaster is one of the handsomest country towns in England, situated at the extremity of this charming vale, and the Gothic fabric of its church is justly admired. The Don afterwards sinks into that extensive flat which environs the Ouse, passing under lord Downe's large seat of Cowick, near the small town of Snaith; the lower of its two channels appears to be a navigable cut, and is called the Dutch river.

'The Calder takes its source on the borders of Lancashire, not far from Burnley, pursuing a course nearly eastward to Wakefield, with manifold windings; after which it turns rather to the north, till it joins the Aire near Ferrybridge, at the village of Castleford.

'This river is more rapid than the Don, and is intersected by various canals in the manufacturing counties it passes through, which form a junction between the eastern and western seas, across the kingdom from Liverpool to Hull. It rises in the moors, and flows through a populous and romantic district, leaving the flourishing town of Huddersfield on the right; it passes under Wakefield afterwards, and forms a fine curve to its junction with the Aire, near sir Rowland Wynne's great house at Nostall.

'The Aire rises from a small lake in the great moors, not far from the source of the Ribble of Lancashire, and somewhat on the north-east of Settle, descending through Aire-dale, to form the district of Craven in its course to the south-east, which it pursues as far as Leeds. It then turns nearly eastward, and, meeting the Calder, passes under Ferrybridge, thence traversing the flat of Yorkshire, a little north of Snaith, where it receives the Don, and soon joins the Ouse, a little above Booth Ferry, near Howden.

'The Aire is longer than the Calder, and much its superior in navigation, being also joined by numerous canals from the west. Its origin is almost mountainous, in the midst of the wildest moors, and Aire-dale partakes strongly in the nature of that line of country. The district of Craven is singularly romantic, being a rich vale, bounded by high hills, with the town of Skipton in its centre, below which it forms a beautiful valley to Keighley, full of trade and population; it passes by the ruin of Kirkstall Abbey in its way to Leeds, all the manufactories and villas of which flourishing place and its vicinage encompass its banks, after which it divides one of the richest plains in the kingdom to Ferrybridge, not far from the eminence

where the town of Pontefract is situated, remarkable for its ruined castle and church, as well as its plantations of liquorice. Ferry-bridge is a charming spot, with an admirable inn at its foot; but the Aire can boast little beauty afterwards, as it advances through an undistinguished level, to join the Ouse, not far from the Don.

'The Wharfe rises in the moors of Yorkshire, considerably northward of the Aire, joined by the little stream which forms Langtherdale, and pursuing a course a little deviating from the south, towards the east, till turned by the high hills of Rombald's moor, it flows eastward by Oatley to Weatherby, where it again turns to the south-east to Tadcaster, and joins the Ouse near Cawood.

'The Wharfe is not equal in size to the Aire, but infinitely more rapid, which restrains its navigation. Wharfe-dale is a wild district, but the valley afterwards formed by Otley to Weatherby is uncommonly beautiful. The view from the hill called Otley-Shiven is striking in the extreme, and some part of the great territory of Harewood commands this valley happily. At Weatherby the Wharfe is yet a mountain torrent, and still more so at the romantic spot where the spring of Thorp-Arch attracts the public. It is little worthy of notice afterwards, as it sinks into the level below Tadcaster; nor is there now any thing striking at Cawood palace, which was once so splendid.' P. 55.

In spelling the word *estuary*, the mouth of a river, Mr. Skrine uses the diphthong *æ*, a compound in the present day which, together with the *œ*, is rather unknown to English orthography, since we do not with the Germans give them the genuine pronunciation, according as the *a* and the *o* predominate, but are contented with the simple enunciation of *e*. We must also observe, that Mr. Skrine's account of the sources of rivers is sometimes very unnecessarily vague; as he ought, in every possible case, to have specified the precise spot. This leads us to recommend to him a publication upon the British mountains—a curious but neglected topic—for which, however, some previous degree of knowledge in mineralogy would be requisite. When he mentions, p. 75, that the mountains which give source to the Tees are gigantic, we should rather have thought that he had been speaking of the Alps than of such comparatively minute elevations. Mr. Wane, p. 77, should be Mr. Vane. Our author is sometimes too fond of the picturesque, and too much estranged from the reality. Thus, in describing the northern rivers, he should have mentioned, that for five days in the week they are commonly *brushed*; that is, the reservoirs for washing leaden ore are opened into them; whence they not only become turbid and disagreeable to the eye, but the fishes decrease, and little sport remains for the angler. It is to be regretted that the progress of manufactures should so much injure the general appearance of the country; but it seems difficult to suggest any remedy.

The Scotch rivers are mostly so well known, from Mr. Pennant's and many other recent tours, that we need not repeat Mr. Skrine's observations, which are moreover, in this part,

generally of a meagre and desultory kind. The *Perigonus*, p. 145, should be the *Berigonius*. Mr. Skrine re-enters England.

'The Eden is the first English river on the south-west border of Scotland, being, like the Tweed, at last a boundary between the two kingdoms. It nds its source in the moors of Westmorland, a little to the south-west of Kirby Stephen; its course is for a short way to the north-east, after which it inclines to the north-west, below Brough, with many windings, till it reaches Cosby, on the road between Carlisle and Newcastle; it then turns to the south-west to pass Carlisle, and immediately afterwards resumes its old course to the north-west, till meeting the Eske at its mouth, both rivers in conjunction form the great firth of Solway, which separates the south-western parts of Scotland from the Cumberland coast in England for a great distance. Except while it continues within its native moors, the Eden is by no means a rapid river; it traverses a pleasant country between Appleby and its junction with the Eamont, which flows from the Lake of Ullswater, somewhat on the south-east of Penrith; its banks are highly romantic, and beautifully fringed with wood, near the ornamented territory of Corby castle; soon after which the Irthing joins it from the north-east, as well as the Calder and the Petterell from the south and south-west. At Carlisle, the Eden makes a handsome appearance, flowing under a fine bridge with a long causeway, and beneath the walls of its castle, from whence it is navigable to its mouth. A large tract of marshy ground encompasses it on every side, as it becomes a sea, and prevents the Solway Firth from equaling some of the lesser æstuaries in beauty.' P. 154.

Even in his account of the Welch rivers, Mr. Skrine continues to display the same want of historical learning and anecdote which would have so much contributed to variegate and improve his work.

'The Lower Avon rises in the hilly district of North Wiltshire, bordering upon Glocestershire, not far from Wootton Basset; but various springs are assigned for its origin as well as for that of the Thames, from whose numerous sources it is also not far distant. Emerging from the hills, it makes a compass to fall into the vale, which leads from Christian Malford to Chippenham, after which its windings are numerous, from the hilly nature of the country through which it passes, as it advances through the clothing district of Wiltshire, bordering upon that of Somersetshire, and for some space divides the counties. Its course is at first southward, and it makes a long compass by the west towards the north, and then to the west, at last encircling the city of Bath on two sides, from whence it pursues nearly the same direction, with frequent mæanders, to Bristol. It then inclines to the north-west, as it conveys the abundant trade of that opulent city to the Severn, by its conflux constituting the Bristol Channel at King-Road.

'This river is more remarkable for the romantic valleys it forms,

and the rich country it winds through, than for its extent, being generally buried within deep banks; its colour also is liable to be strongly affected by storms, those from Wiltshire tinging it with white from a chalky soil, and those from Somersetshire with red, from the ochre prevailing in that country; but it naturally presents a dark and deep stream, except where shallows intervene, and is occasionally rapid. About Chippenham the country is extremely beautiful, and yet expanded; on the north of which neat town the seat of Harden-Hewish occupies a charming position, the friendly and hospitable virtues of whose late owner, Joseph Colborne, esq. will long be remembered gratefully in that neighbourhood. Mr. Methuen's extensive park and domain of Corsham lies farther in the vale, and his fine old house exhibits a striking and pleasing contrast of the ancient British architecture, with two fronts of the Grecian, presenting at the same time a most magnificent and well-disposed collection of paintings. Bowden hill rises boldly in front, crowned with the splendid new-built seat of Mr. Dickinson, and backed by sir Edward Baynton's thickly-wooded territory of Spye Park; while in the vale the noble remains of Laycock abbey, the venerable seat of the Talbot family, mark proudly the level near the river. The towns of Melksham and Bradford crowd its banks now with the great population of a trading country, and a canal has been studiously formed to transport their commerce, the Avon not being capable of navigation above Bath. Below Bradford, joined by the Were from Trowbridge, the Frome from the venerable remains of Farley castle, and a brook from the interior of Somersetshire (near the fine hollow of Limpley Stoke) flowing through Mr. Smith's much-improved territory of Combe-Hay, the Avon forms a deep and hollow valley between high impending hills, some of which are rocky, and others profusely clothed with wood; abundant villages are scattered along these eminences, and some few seats are beautifully dispersed, so as to command the river and its striking accompaniments in perfection.

'I must not here let a fear of the imputation of egotism or vanity restrain my noticing the enchanting position of that little territory which became mine by descent, and was eminently improved by the taste and attention bestowed on it by my late most excellent father. Warley is situated on a gentle eminence above the Avon, beneath a rocky hill, thickly clothed with wood towards its base, and descending almost perpendicularly to the house, so that the public road is obliged to be carried on a shelf above it. The mansion, which is inconveniently irregular in old buildings, with a modern front, looks to the south, commanding a valley of about four miles in length, the boundary of which is an extensive chain of woods, descending abruptly from the borders of Wiltshire, and enriched with much magnificent timber. A small but beautiful lawn expands towards the river, and fine clumps of oaks and elms mark the various undulations of ground in front of the woods, interspersed with cottages; while the Avon, precipitating itself from a broad basin down a wear in full front, rolls beneath the slope in which the gardens descend. The opposite hill rises still more abruptly, terminating to the north in some bold cliffs above Hampton, which front the

ancient camp of Salesbury, impending over Batheaston, and the pleasantly-clumped grounds of Mr. Whittington on the more distant borders of Glocestershire. About midway in this ascent, immediately overlooking Warley and the river, the pleasing village of Claverton seems to hang suspended, where its large Gothic mansion (renowned in the civil wars) and its little church, with the pyramidical tomb of the late much-esteemed Mr. Allen, are striking objects; neither is its parsonage less pleasing, the little grounds of which are laid out in a truly classic taste by the Rev. Mr. Graves, the friend and literary rival of Shenstone, where that worthy veteran closes the placid evening of his days in the retirement he has so happily embellished, deservedly beloved and respected. Monkton Farley, a seat of the duke of Somerset, occupies the opposite height, enjoying extensive views over Wiltshire, whose circular clump forms a kind of land-mark to this tract of country.' P. 233.

We need not, with our author, describe Stourhead and other remarkable spots in the west of England. Upon many occasions, we see reason to regret Mr. Skrine's want of knowledge in natural history,—another essential branch of science, which would have lent great additional value to his work.

'The Dart originates in the mountainous region of Dartmoor, descending first southward, and then inclining considerably to the east, before it quits that rude district; its winding course is afterwards to the south-east, as it passes Totness, and falls into the sea between Dartmouth and Kingsweare.

'The Dart is the principal of all those rivers that are produced by the rocky range of Dartmoor in the centre of Devonshire, which, in wildness at least, though not in height or extent, may emulate most of the mountainous tracts of Wales or Scotland, and can display a stronger contrast to the extraordinary fertility and riches of the surrounding districts than those countries are generally capable of exhibiting. Rapidity is its first characteristic; and this quality it retains long after it leaves those mountains which inclose its source, as it descends into the rich plains of the southern part of Devonshire. A little west of Ashburton, it forms a charming valley, and flows in placid beauty beneath the high hill, which is finely distinguished by the castle and church of Totness. Here the Dart is crossed by its last bridge, and, soon afterwards receiving the tide, it rolls in a majestic stream between bold hills covered with cultivation, woods, and villages, disclosing new beauties at every curve, and presenting a grand object to the adjacent country, varied perpetually both in its form and attendant features. The noble ruin of Berry Pomeroy castle, an old seat of the duke of Somerset, occupies an eminence on the east, at some distance from the river, below which a very picturesque rivulet descends through a dark winding dell, adding much to the solemnity and beauty of the scene, where the deep gloom of the overhanging wood, which encircles several majestic towers clothed with ivy, inspires that kind of awful dignity which seems suited to the most romantic periods of our ancient history. The eminences which inclose the channel of the Dart become at last almost moun-

tainous, forming on the west a barrier to the southern peninsula of Devonshire, between that river and the Tamar, and on the east to the Road of Torbay; while the river, winding between their wooded and rocky bases, passes the very striking position occupied by the hamlet of Kingsweare on its eastern bank, and the singularly irregular town of Dartmouth on its western, the whitened fronts of whose houses, built in stages over each other, and beautifully interspersed with wood and rock, form a curious assemblage of interesting objects. The ivied walls of Dartmouth castle, with its rustic spire, starting out from beneath a bold rocky hill, close the prospect with great majesty, and strongly mark the proud exit of the Dart towards the sea.' P. 269.

Amesbury abbey, p. 285, is no longer a French nunnery, the ladies having long since removed into Dorsetshire, from inability to pay the rent of this mansion, which is but a tasteless piece of architecture, the portico being far too large.

The three last chapters describe the Thames and its subsidiary streams.

'Like the source of the Nile, the position of the original fountain of the Thames has been variously assigned, and its birth-place has been almost as much contested as that of Homer, by divers contributing springs on the borders of Glocestershire and Wiltshire, through which its several early branches hasten to form their union previous to their reaching Oxfordshire. Cricklade in Wiltshire is the central town of this district; and some attribute the honour of forming the head of the Thames to a clear fountain in its vicinage, which has long borne that title, and been considered almost as a consecrated spot by the veneration of the surrounding villages; while others prefer a stream issuing from the vicinage of Kemble, marked by its neat spire; others again take the rivulets which advance from Swindon and Highworth in Wiltshire (one of which is called the Rey); and many argue for the Churn of Glocestershire, which rises in the hilly tract of the Cotteswold, encircling the vale of Cheltenham, and flows to the south-east, by Cirencester, and through the extensive woods of lord Bathurst, to Cricklade. The dispute is not of consequence, as none of these fountains, in their origin, differ materially from a common rivulet, and each county may innocently enjoy the fancied distinction, while the subjects of their contention unite near Letchlade, and creep in obscurity through the plain of Oxfordshire, attended for some distance by the parallel canal, which has been lately made, with immense expense, to join the Severn with the Thames, and so to form what should seem to be the most important inland navigation of Great-Britain, by transporting the influx of foreign as well as internal wealth to and from the capital. This canal, which has been noticed before in this work, when its exit from the Severn was mentioned, perforates the long subterraneous tunnel of Saltperton in Glocestershire; but even when it advances to the river, does not form its junction immediately, but pursues a similar course to Letchlade, on the west of which place the Coln descends from the pleasant villages of Bibury and Barnsley; and on the east, the Lech,

from North Lech, adds its tributary forces; after which the combined streams bear together the classic name of the Isis. Here the navigation of this river probably commences; but it is understood to be long very imperfect, from its winding course and its prevailing shallows; neither is the country it first traverses, dividing the counties of Oxford and Berks, at all pleasant, as it pursues its way, almost unseen, in the midst of an unvaried plain, first towards the east, and afterwards inclining to the north. In this level the Windrush joins it from Burford and Witney, and the pleasanter stream of the Evenlode, pursuing nearly the same direction from the north-west, descends from Whichwood forest and the great ridings of Charlbury, united at last with a smaller stream, which forms the great lake in Woodstock park, in the centre of the proud domain encircling the towers of Blenheim. The Isis, thus augmented, turns suddenly to the south, washing the ruined walls of Godstow nunnery, the chapel of which contains the tomb of the unhappy Rosamond, overhung on the west by a finely-wooded hill, which still bears the traces of the park belonging to the deserted pile of Witham house, an old seat of the Abingdon family.' P. 319.

In this and the subsequent paragraphs the name of Isis seems merely pedantic, being certainly unknown to ancient English geography and history, and even to popular tradition. It should have been left, therefore, in the quiet possession of the students at Oxford.

'Dropomore Hill, the new creation of lord Grenville, fronts Windsor castle directly, its contiguity to which, as well as its easy distance from the metropolis, and the charms of the surrounding country, prove the taste and judgement which formed it for the occasional retirement of a minister of state from the duties of his office. The neighbouring and connected territories of Taplow and Clieffden have still superior points of view from their bold positions, and the latter in particular embellishes a long reach of the Thames, which terminates in the stately stone bridge of Maidenhead, with an almost perpendicular bank of rich wood, decorated with temples and other ornamental buildings. These places are too well known to need a minute description from my pen; but one sequestered spot at Clieffden, where a clear spring, under the covert of a thick wood, bursts forth and joins the river, should not be unnoticed. To those who navigate the Thames for pleasure, its retired position, the coolness of its surrounding shades, and its access to the numerous walks of the place, abundantly recommend it. Hedsor-house, the seat of lord Boston, is the last of these magnificent villas towards the west, and principally fronts the vale leading to Marlow, though it has some command of the other sweep of the river, and the scenery about Windsor. It is a large pile, surrounded by considerable rising plantations on a high ridge, descending precipitately into the level at a short distance from Woborn, and near the spot where the Thames makes its sudden turn to approach Maidenhead-bridge beneath the wooded bank of Clieffden. That river has here formed an island, which sir George Young has not only planted and adorned, but even

embellished with a handsome house, connecting it by a bridge with the Berkshire shore. Though a singular position for a residence, this new creation must give an additional beauty to this striking part of the Thames, as the plantations grow up: the pleasant retired village of Cookham is close to it, and the town of Maidenhead, in the descent of the river, not far distant.' P. 340.

But we have already exceeded our intended limits, and need not stop to survey the remaining objects on the Thames; most of which indeed are familiar to our readers. We have already mentioned, that a more intimate acquaintance with civil and natural history might have added greatly to the value of this publication.

---

ART. V.—*Sermons, by Hugh Blair, D. D. F. R. S. Ed. One of the Ministers of the High Church, and Professor of Rhetoric and Belles Lettres in the University of Edinburgh. Vol. V. To which is annexed a short Account of the Life and Character of the Author, by James Finlayson, D.D.* 8*vo.* 7*s. Boards.* Cadell *and* Davies. 1801.

THE hand that penned these discourses is now cold, and Scotland is still weeping over the remains of one of the brightest ornaments of her church. Studying the Scriptures less to improve the head than the heart, he does not rank among the profoundest critics in theology; but elegance of style, fluency of diction, and all the charms of polished and easy composition, point out to us, in the author of these sermons, the man of taste, equally unable as unwilling to wield the arms of the sturdy polemic. His country had long groaned under the galling yoke of a crabbed and severe system derived from the fanaticism of a Knox and the moroseness of a Calvin, till he happily arose to introduce urbanity of manners into its societies, and all the graces of elocution into its pulpits. A new race of preachers has been formed under his auspices; and polite letters are now cultivated in union with the truths of the Gospel. The favorable reception which the former volumes of Dr. Blair have obtained from the public will most assuredly be extended to the present; and it will be perused with more curiosity, though with a melancholy pleasure, while it is recollected that its venerable author is now no more, and that it comprises the thoughts of the early and middle periods of a life, matured by advancing age, and receiving the last corrections of the writer's pen when he had passed his eightieth year. Annexed to the discourses is a short account of Dr. Blair, by his colleague, Dr. Finlayson, from which the following particulars are extracted.

Dr. Blair, the son of a respectable shopkeeper at Edinburgh, was born, in that city, on the 7th of April 1718. Early designed for the church, he received a suitable education at the grammar-school, and the university, where he took the degree of master of arts, in the year 1739. After the usual examinations, he obtained a licence to preach on the 21st of October 1741; and, on the 23d of September 1742, was presented to the living of Colessie in Fife; but his townsmen did not permit him to remain there long, as, in July 1743, he was elected to the second charge of the Canongate, in his native city. In the pastoral duties of this office he was engaged for eleven years, being distinguished from his brethren by the care with which his discourses were composed, equally removed from the metaphysical subtilties of one, and the loose incoherent declamations of another class of preachers. On the eleventh of October 1754 he was translated from the Canongate to lady Yester's church; and, on the 15th of June 1758, was promoted to the high church of Edinburgh, the most important ecclesiastical charge in the northern part of this island. For forty years, the most exalted ranks in Scotland listened to the precepts of this admired teacher; and his ministerial labours were, during the whole of this period, conducted with equal prudence, ability, and success.

Till he was elevated to this pre-eminent station, he could be scarcely said to have appeared before the public as a writer. Two sermons, preached on particular occasions, some translations, in verse, of passages of the Scriptures, for the use of his congregation, and a few articles in a review, were the only compilations he had committed to the press; but the applause with which his discourses from the pulpit had been received inspired him with the thought of introducing a more accurate acquaintance with rhetoric, and the art of composition, into the university. His plan was approved, and he was permitted to begin a course of lectures in the college, on the 11th of December 1759, which was well attended; and, in the next year, a rhetorical class, under his auspices, was made a permanent part of the academic establishment. In 1762, the professorship of rhetoric and belles-lettres was erected and endowed, and Dr. Blair was appointed first regius professor, with a salary of 70*l.* a year. The publication of these lectures, in 1783, convinced the public at large, that the author had done honour to the royal appointment.

About the time that the foundation was laying for this professorship, the supposed poems of Ossian became the subject of inquiry, and Dr. Blair's patriotism led him to the patronage of Mr. Macpherson, whose publication was dignified by a dissertation from our author's pen; which, whatever may be the merits of the subject, was, for its beauty of language, delicacy of

taste, and acuteness of critical investigation, universally admired. In 1777 his fame was more widely extended by the publication of the first volume of his sermons, which, at different intervals, was followed by three others, all stamped with public approbation, and producing to the writer considerable emolument. A pension also of 200*l.* a year, the fruits of those sermons, was conferred on him, by a royal mandate to the exchequer of Scotland, on July 25, 1780. The last work in which he was engaged is the volume now before us, containing sermons composed at different periods of his life, but 'all written out anew in his own hand, and, in many parts, recomposed during the course of last summer (1800), after he had completed his eighty-second year.' Of the numerous discourses which he had, in the course of so long a life, composed, the five volumes now before the public are the only remains; as, by an express injunction, the rest were committed to the flames.

From the situation which Dr. Blair held in the church, he could not be entirely exempt from its political concerns; but he would never consent to become moderator of the general assembly; and, from the predominance of his character, was the friend of quiet and liberal measures. His biographer places him in the party which was anxious 'to preserve the church, on the one side, from a slavish corrupting dependance on the civil power; and, on the other, from a greater infusion of democratical influence than is compatible with good order and the established constitution of the country.' In private life he was universally esteemed. Cheerfulness, prudence, and the same correctness of taste that appears in his writings, were his guides in his intercourse with the world; and, free entirely from envy, his mind was filled with thankfulness for the success of his own exertions. In 1748 he married his cousin Catharine, daughter of the rev. James Bannatyne, one of the ministers of Edinburgh, by whom he had two children; a son, who died in his infancy, and a daughter, who attained only her twenty-first year. He survived his wife, who had been united to him with the tenderest affection, for nearly half a century. Originally of a feeble constitution, through habitual cheerfulness, temperance, and care, he surpassed the usual term of life; and though, for some years before his death, he felt himself unequal to the fatigues of the pulpit, yet he continued to his last moments in the discharge of his other official duties. On the 24th of December, 1800, he complained of a pain in the bowels, which gave but little uneasiness till the 26th, when the symptoms appeared alarming; and, on the morning of the 27th, he expired with the composure and hope which became a Christian pastor. The whole city united with the more immediate friends of the deceased in testimonies of grief; his church, by order of the magistrates, was put into mourning; and a funeral sermon,

preached by his biographer, in which the due encomiums bestowed on his departed friend were received with melancholy approbation by the kirk session, and a numerous and most respectable congregation.

The sermons before us so much resemble those that have preceded the publication of this volume, that little is necessary to be said on their general character. Sublimity is not often attained, nor even aimed at; the thoughts flow with an even tenor; and accuracy of style is evinced in every composition; Scotticisms rarely appear; while Scriptural criticism, or extended views of the Christian dispensation, as they did not enter into the writer's intention, form no very prominent appearance; and his sermons may properly be entitled elegant essays of morality on Christian principles. The hearer of these discourses was, and the reader of them will ever be, pleased with the author; and though they seldom excite him to be very much offended with himself, they are at least calculated to refine the mind by the gentle process of pleasing the imagination. They are, however, likely to be chiefly perused by the classes for whose real benefit they are the least adapted; we mean those in the higher and middling stations of life, who have a great regard for public decorum and what is called character, who esteem the attendance on church or kirk an article of the first necessity, and can combine with the amusements and occupations of the world a sufficient quantity of religion to make the change from one to the other a pleasing gratification. They will be the delight of the passive more than of the active Christian, of him who is not insensible to good, when it is presented before him in proper colours, rather than of him whose thoughts are more bent on the future than on the present world, and who wishes to call into exertion every faculty of his own or of his neighbour, for the temporal or spiritual benefit of his fellow creatures. Yet the class of readers by which they probably will be entirely neglected might derive much advantage from the perusal of these discourses—the rising sect, we mean, of the methodist, or, as they are termed, evangelical Christians; and to the preachers of this sect we particularly recommend them. To their energy and zeal, which cannot be too much commended, they will add a knowledge of the world and the human heart; they will teach the advantages of a perspicuous style, and of easy diction; they will infuse into their exhortations the graces of elocution, and bring within due bounds the wandering powers of inflated declamation.

Of the writer's little attention to the great marks of the Christian dispensation, we may produce an instance from a political sermon, in which the late events in France so occupied his mind, that, like many other preachers at different periods from the publication of the Gospel, he has perverted entirely the sense

of a passage in Scripture. 'Certain things,' he says 'belong to *our* admonition, on whom *the ends of the world are come.*' Absurd! what have our times to do with the ends of the world? and in what sense can the term be applied to ourselves? Nothing can be more expressive or beautiful than the language of the apostle in the original; but, by translating the word which means *ages* into *world*, a notion was introduced, which makes the apostle speak not only incorrectly, but falsely. A period of above seventeen centuries has elapsed since he wrote these words; and the *ends* of the world are not yet come, nor did the *end* of the world at all enter into his thoughts at the moment he was writing. The destruction of the Jewish, and the commencement of the Christian age, were the circumstances to which he alluded; and the instruction conveyed by the examples, evinced in the Jewish æra, was with the greatest propriety recommended to those whose life and conduct would have such an influence in the new dispensation. We notice this inattention to Scripture, in a preacher of undoubted talents, that we may enforce upon all the necessity of referring to the original in the composition of their discourses; for, assuredly, it is a great fault in every clergyman of the church of England, or minister of the kirk of Scotland, to quote a passage from Scripture without a thorough investigation of its meaning in the language in which it was written.

A political sermon is always with us an object of censure. What has the preacher to do with the distinctions between monarchy, aristocracy, and democracy? or, in what manner can it be edifying to a Christian congregation to be diverted from the great purpose of a religious meeting, to an inquiry, whether 'there are no advantages claimed by a republic, but what, under the British constitution, are enjoyed to the full?' We are not surprised to find our author inveighing, in the usual style, against the French; deploring the fate of the venerable ministers of religion stripped of their subsistence, 'torn from their churches, driven from their homes, and forced to wander as exiles, and beg their bread in a foreign land;' and we find him too courtly a divine to impress on his audience the intolerance of that priesthood thus driven from their country, the cruelties which they have uniformly exercised against the protestants, the mummery of their worship, and their adherence to an abominable superstition. The horror of an established clergy being deprived of their incomes appears more to have possessed his mind than the horror of an established superstition, degrading to human nature. This, indeed, seems to have been his prevailing sentiment, from the manner in which he speaks of religion in this island.

'Religion has, among us, neither been the engine of ecclesiastical tyranny, nor the instrument of princely despotism. It has main-

tained a proper alliance with the regular government of the state, and the order of public tranquillity. The church that has been established by law, in the two separate divisions of the island, is suited to the genius and dispositions of the people in each; while to the established church is given that protection and support from government, which both the interests of religion and the welfare of the state render proper and due; yet no rigid conformity to it is exacted.' P. 122.

The assertion, that the question on episcopacy and presbyterianism is to be referred to the genius and disposition of the inhabitants north and south of the Tweed, is such a burlesque on the controversy maintained, not only in this country, but in France, Holland, Germany, Sweden, Denmark, and Switzerland, that it must expose the writer to the ridicule of every party, and prove him to have been as unqualified to defend the tenets of his own establishment, as he was unwilling or unable to trace to their highest source the truths which he professed to inculcate from the Scriptures.

But let us turn from these blemishes in the character of an eminent divine, which arose probably from the ease of his natural disposition and from associating chiefly with men of the higher ranks, and fix our attention on those points in which he shines with unimpeachable lustre, as the man of letters, and the elegant moralist. We should have to insert almost every page, if we were to omit nothing in which he does not surpass the generality of the modern preachers of morality. Each discourse has something to arrest the attention, and we are receiving continual pleasure from the elegance of his expressions. In the sermon on a peaceable disposition, we recognise the pre-eminent traits of his own mind, and the happy moments we have passed in his company, when the same topic was the subject of conversation.

'When we view the eagerness with which contests are agitated in society, and look to the bitterness and wrath they so oft occasion, one would think that all were at stake, and there could be no life, no happiness on earth, unless to him who was victorious in the contest. And yet, in how few instances has there been any just ground for this mighty ferment of spirits?—You have been slighted, perhaps, by a superior; you have been ungratefully treated by a friend; a rival has over-reached you by fraud, or overcome you by more powerful interest. Amidst the bustle of life, amidst the interfering and crossing of various pursuits and interests, are not such incidents to be expected by every one? Ought you not to have been prepared for encountering them without passion or violence, as evils belonging to the common lot of humanity? As light bodies are shaken and torn by every breath of wind, while those that are solid resist the blast; so it is only the little and mean mind that loses possession of itself on every trifling provocation; while a great and firm spirit keeps its place, and rests on a basis of its own, unshaken by the common

disturbances of life.—Of what small moment to your real happiness are many of those injuries which draw forth your resentment? They may affect in some degree your worldly interests; but can they affect your true honour as a man? Can they deprive you of peace of conscience, of the satisfaction of having acted a right part, of the pleasing sense of being esteemed by men, and the hope of being rewarded by God, for your generosity and forgiveness?—In the moments of eager contention, all is magnified and distorted in its appearance. A false light is thrown on every object. Nothing appears to be what it really is. But let the hour of violence pass over; let the course of time bring forward recollection and calmness, and you will wonder at your former violence. Objects which once were so formidable, will then have disappeared. A new scene has taken place: and the grounds of former contention will seem as dreams of the night, which have passed away.—Act then now the part of a man, by anticipating that period of coolness, which time will certainly bring. You will then cease to break the peace of society with your angry contentions. You will show that magnanimity which belongs to those who depend not for their happiness merely on the occurrences of the world. "He that is slow to anger is better than the mighty; and he that ruleth his spirit, than he that taketh a city." P. 328.

The discourse on the folly of the wisdom of the world gave our preacher an opportunity of displaying, in its proper colours, that odious character, generally known by the name of a man of the world, who is described to be

'—one, who, upon any call of interest, flatters and deceives you; who can smile in your face, while he is contriving plans for your ruin; who, upon no occasion, thinks of what is right, or fit, or honourable; but only of what is expedient and useful to himself.

'I have dwelt the more fully on the delineation of this character, that each of us might learn whether there be any feature in it that applies to himself; as it is a character too frequently met with in the world, and not always so severely reprobated as it ought to be. Let me now ask, whether such a character as I have described be in any respect an amiable one? Is the man of the world, polished, and plausible, and courtly, as in his behaviour he may be, one whom you would choose for a companion and bosom-friend? Would you wish him for a son, a brother, or a husband? Would you reckon yourself safe in confiding your interests to him, or intrusting him with your secrets? Nay, let me ask, if he be one whom in your hearts you respect and honour? His shrewdness and abilities you may perhaps admire; stand in awe of him you may; and, for the sake of advantage, may wish him to be on your side. But could you honour him as a parent, or venerate him as a magistrate? or would you wish to live under him as a sovereign? Of what real value then, let me ask, is that boasted wisdom of the world, which can neither conciliate love, nor produce trust, nor command inward respect?——At the same time, I admit that the man of the world may be a man of very considerable abilities. He may display talents of many different sorts. Besides art and sagacity, he may possess

genius and learning; he may be distinguished for eloquence in supporting his own cause; he may have valour and courage to defend himself against his enemies.—But observe, I intreat you, a consequence that follows. You see, in this instance, that the most distinguished human abilities, when they are separated from virtue and moral worth, lose their chief eminence and lustre, and are deprived of all valuable efficacy. They dwindle into despicable talents, which have no power to command the hearts, nor to ensure the respect and honour of mankind. Let it be carefully observed, and always remembered, that integrity, probity, and moral worth, are essentially requisite to give the stamp of real excellence to any powers or abilities which the human mind can possess.' P. 364.

The last discourse composed by our author is on a life of dissipation and pleasure: and this circumstance is properly recorded by his biographer, as it may lead those who are most engaged in such a career to peruse it with peculiar attention. 'It may be regarded as his solemn parting admonitions, to a class of men whose conduct is highly important to the community, and whose reformation and virtue he had long laboured most zealously to promote.' These admonitions proceed, let it also be recollected, from a man who had witnessed the progress of two generations in this vicious course, and that they are not merely adapted to the higher classes, who, from the splendor of their outward appearance, seem to have drunk to the very dregs of the cup of Circe. The curiosity of these orders we will not anticipate; but, to the consideration of their inferiors, the following extract may be peculiarly recommended.

'To some, it may perhaps appear, that the whole strain of this discourse refers only to the rich and the great; and that persons of moderate fortune, and of the middle ranks of life, who form the great body of society, have little or no concern in it. But this is entirely a mistake. Splendid fortune, and high birth or rank, afford, beyond doubt, the strongest and most frequent temptations to the loose indulgence of every enjoyment. But throughout all ranks the danger extends of being mis-led by pleasure, in some of its forms. In this country, where wealth and abundance are so much diffused over all stations; where it is well known that the inferior orders of men are perpetually pressing upon those who are above them, and following them in their manners; a life of dissipation is perhaps not less frequent among the middle than among the higher classes of society. The modes of amusement may not be so refined. The entertainments and pleasures may be of a grosser kind. But in many an inferior circle there prevails as much love of pomp and show, as much proportional extravagance in expense, as much rivalry in the competition of passions and pleasures, as in the most fashionable and courtly assemblies. Sober reflexions are as much laid aside; the gratification of vanity, and the indulgence of pleasure, are pursued with equal eagerness.—Let us therefore, my brethren, in whatever rank of life we are placed, proceed upon this as our great principle, that

to serve God, to attend to the serious cares of life, and to discharge faithfully the duties of our station, ought to be the first concern of every man who wishes to be wise and happy; that amusement and pleasure are to be considered as the relaxation, not the business, of life; and that if from those sentiments we depart, and give ourselves up to pleasure as our only object, "even in laughter the heart shall be sorrowful, and the end of our mirth shall be heaviness." P. 266.

Our limits probibit us from making farther extracts, and, indeed, they are scarcely necessary; for the numerous purchasers of the preceding volumes will not think their sets complete without the addition of the present; and he who purchases must have little leisure if he do not frequently renew his acquaintance with the former volumes, and peruse with eagerness the last remains of so amiable a preacher, whose discourses, calculated equally for the refinement of sentiment and style, will probably be ever considered as the first productions of the Scottish pulpit.

---

ART. VI.—*A Dissertation on the Construction and Properties of Arches, by G. Atwood, F.R.S. 4to. 7s. 6d. Boards.* Lunn. 1801.

WHILE thousands of arches are turned annually in this country, by bricklayers and masons; while the joiner is perpetually employed in framing casements for windows, and the general architect is daily projecting new models for buildings; mathematicians have hitherto tormented themselves in vain, in pursuit of the best form of an arch. We have equations to curves presented to us, which are to produce wonderful effects; but, fortunately, as they arise from the consideration of first and second fluxions, the practical builder understands nothing of the demonstration; and, if he did, the difficulties in the way of forming the frame for the required curve would ruin all his scientific preconceptions. How then is it, that bridges are actually built? that they remain firm, and support immense weights? How is it that they are built by the most ordinary bricklayer? that a frame, united in the rudest manner, should prove adequate to its purpose? that scarcely any skill is necessary in forming the bricks to a particular standard? These questions, if they had occurred to the mathematicians who were composing their 'principles of bridges, containing the mathematical demonstrations of the properties of the arches, &c.' might have led them to contemplate the curve of the arch as of little importance, and to conclude that the theory of circular buildings depended upon other and very different qualities in their structure.

In glancing at the windows of every house, the arches of

every bridge, or the entrances of every church in this vast metropolis, what is it that particularly strikes the eye in the position of the stones or bricks which form an unsupported curve? We see them placed differently from all the rest; and perceive, that the centre stone or brick is the segment of an equiangular wedge, the stones or bricks adjoining them being also segments of wedges. The whole, in short, appears to be a composition of wedges, of which the key-stone is the most important, as retaining all the others fast. Hence it should seem that the practical artist is our best instructor; that we ought to follow him in our investigation; and that the properties of the wedge are the great clue in all our inquiries. This idea is very happily seised by the writer of the work before us, whose mathematical talents, great as they are, have seldom been applied to a more useful purpose. He has cleared the science of bridge-building from the obscurity in which it has hitherto lain enveloped, and presented a simple and easy theory, by which the nature of equilibration is most judiciously explained; and the reason, that the practical artist so seldom errs in his structures, is evident from the nature of those structures on which he is employed. In fact, he has in general but little to do with calculation; his abutments commonly surpass the strength required for his arches; and it is very seldom indeed that the latter are elevated to such a height from the ground, and support so great a pressure, as to require aid from theory. In cases of the former kind, the errors of the architect may not discover themselves for years, or even centuries; but the fall, which has lately occurred, of several churches throughout the kingdom, may properly lead to an examination of the tottering state of many similar edifices.

In this work then, as we have before observed, the theory of arch-building is deduced from the nature of the wedge, and the equilibrium of arches is established, 'either by adjusting the weights of the sections, according to the angles which are contained between their sides, supposed to be given quantities, or by supposing the weights of the wedges or sections to be given, and investigating what must be the angles contained by their sides; so that the pressures on them may be an exact counterpoise to the weight of each section, due regard being had to its place in the arch.' The wedges are considered as perfectly hard bodies, independent of each other, and as acting solely by their own gravity, without cement or other fastenings. Thus, if we suppose a certain number of these segments of wedges placed in the form of an arch, or united in a straight line at their bases, as generally occurs at the tops of our windows, 'the weight of each section, by which it endeavours to deseend towards the earth, is opposed by the pressure the sides of it sustain from the sections which are adjacent to it. If the

pressure should be too small, the wedge will not be supported, but will descend with greater or less obliquity to the horizon, according to its place in the arch. If the pressure should be too great, it will more than counterpoise the weight of the section, and will force it upward. The equilibrium of the entire arch will consequently depend on the exact adjustment of the weight of each section or wedge to the pressure it sustains, and the angular distance from the vertex.'

Let us suppose then an arch to be completed; let us next remove all the stones from one side, and apply a prop perpendicularly to the side of the key-stone, so that such prop shall as effectually support it, and, of course, the remaining part of the arch, as if none of the stones had been taken away. In this case, the existing side of the arch will be immovably fixed, and the key-stone be prevented from falling, by the resistance of the prop on one side, and the abutment of the basis of the arch on the other. Half, therefore, of the weight of the key-stone will be supported by the prop, and half by the abutment. From the principles of the wedge, the half weight is to the resistance, or to the action of the prop, as the sine of half the angle of the wedge to radius, the angle of the wedge being the angle which the sides of the key-stone form, when they meet by subtension. Hence, the weight of the key-stone and the angle of the wedge being given, the resistance of the prop is found. Let us now suppose, that the stone next to the key-stone, of which it made the abutment, is also removed, and that the remaining part of the arch is permanent; the prop will not, in this case, be efficacious, unless the key-stone, and that adjoining it, be properly adjusted; and, to make this adjustment, we must have the weights of the key and the adjoining stones given, and also the angles of the wedges. The resistance of the prop, which acted perpendicularly to the side of the key-stone, being increased by the action of the latter, is to be resolved into two sections, the one perpendicular to the new abutment, and the other parallel to it; the latter being the efficacious part of the resistance, to prevent the descent of the stone in the direction of the abutment. In the same manner, the second to the key-stone is to be considered as movable, and so on; and, by a very elegant construction, the weights of each successive stone are determined; and the prop being taken away, and an arch similar to that on the other side of the key-stone substituted in its stead, the whole becomes an arch of equilibration.

To do justice to the writer's plan, several figures are necessary; but we have said sufficient to excite the mathematician to an attentive perusal of the work itself, or a previous application of his own talents to a similar investigation. From the graphic delineation of the weights and pressures of each stone, we are led to the analytical examination of them, which is given in terms

of the sines of the angles of the wedges, and the secants and tangents of the complements of the inclination of the sides of the wedges to the horizon; and from these expressions, tables are deduced at the close of the work, formed according to the angles of the sections, complement of the inclination of the sides, weights of each section, pressure on each successive wedge considered as an abutment, weights of the semiarcs, &c.

The following general rules are laid down, which discover the reasons of the facility with which arches are constructed by the common process.

Rule 1. The initial pressure is, to the weight of the first section, including the weight superincumbent on it, as radius is to twice the sine of the semiangle of the middle or highest wedge.

Rule 2. The horizontal force, which is nearly the same in every part of the arch, is, to the weight of the first section, as radius is to twice the tangent of the semiangle of the first section.

Rule 3. The horizontal or lateral force is, to the pressure on the abutment, as radius is to the secant of the inclination of the abutment to the vertical.

Rule 4. The horizontal force is, to the weight of half the arch, as radius is to the tangent of the inclination of the abutment to the vertical.

Rule 5. The weight of the semiarc is, to the pressure on the abutment, as the sine of the said inclination of the abutment is to radius.

Rule 6. The horizontal force is, to the pressure on the abutment, as the cosine of the inclination of the abutment is to radius.

By these rules, the principal properties of the arch of equilibration are expressed in simple terms, and are easily applicable to practical cases. For, by rule 2, the horizontal force being the weight divided by twice the tangent of the semiangle of the first section, determines the pressure on any abutment of which the inclination to the vertical line is supposed, the pressure being equal to that force, multiplied into the secant of the given angle of inclination.

The weight of the semiarc, when adjusted to equilibrium, is found by the fourth rule to be the horizontal pressure, increased or diminished in the proportion of the tangent of the vertical distance of the abutment to radius. From this property, the cause is evident, which produces so great an augmentation in the weights of the sections, when the semiarc, adjusted to equilibrium, approaches nearly to a quadrant, and which prevents the possibility of effecting this adjustment by direct weight when the entire arch is a semicircle.

The fifth rule exemplifies the analogy between the entire arch

when adjusted to equilibrum and the wedge. For, let the angle between the abutments be made equal to the angle of a wedge, the weight of which is equal to the weight of the arch; and then either of the equal forces, which, being applied perpendicularly to the sides of the wedge, sustain it in æquilibrio, is, to half the weight of the wedge, as radius is to the sine of the semiangle of the wedge; which is precisely the property of the arch, substituting the angle between the abutments instead of the angle of the wedge, and the pressure on either abutment instead of the resistance to the supposed wedge.

The lateral pressure, or the pressure on the abutment, reduced to a horizontal direction, is nearly the same in all parts of the arch, being, to the weight of the first section, as radius is to twice the tangent of the semiangle of the wedge. The force of pressure on the abutment is therefore, at every point, resolvable into two forces; one of which is perpendicular to the horizon, and is equal to the weight of the semiarc; and the other is a horizontal or lateral force, which is, to the weight of the first section, as radius is to twice the tangent of the semiangle of that section.

These rules may be applied to lofty Gothic structures, in which the key-stones of arches, at great heights, are of considerable weight, and consequently require very great buttresses as a counterbalance. From the construction of a simple arch of equilibration, we come to examine the effects of weights superincumbent on them; an investigation which is conducted with great skill and ingenuity: but our limits do not permit us to enter into the detail requisite to make this part of the subject clear to our readers. Nor can we place in sufficient light the accurate statement of our author, by which he demonstrates the comparative insignificance of the curvature of an arch, which may be varied to a very great degree, while 'the properties of the equilibrium still remain the same in a geometrical sense; although, in the practical constructions of arches, the greater curvature of an arch allows greater latitude for the unavoidable errors in execution, and for those which are the consequences of the imperfect nature of the materials used in the construction.'

Pleased, as we have been, with the discussion of so intricate a subject, and highly desirous of recommending it to the perusal of the mathematician and the architect, we cannot dismiss the work without noticing a blemish, which might, by a very small degree of attention, have been avoided. The plates are in general well executed, the lines are drawn clearly, and the scale is large; the engraver has done his duty; but the author has very frequently exercised our patience by his references. Nothing can be more disagreeable, in referring from the text to the plate, than to find the same letter in different places; the eye wanders

from one to the other; and it is with great difficulty that it can discern the force of an otherwise easy demonstration. To this point our author has been extremely inattentive; we find the same letter in three or four places of the same figure: thus, the letter C is in the corner of the key-stone, at the corner of another stone, at the end of a perpendicular to the side produced of a stone. There are letters enough to be derived from our own or other alphabets, whose insertion may, in a future edition of the work, entirely remedy the defect of which we now complain; and, as we have taken the liberty of pointing out this fault to so eminent a mathematician, we hope that it will be a sufficient warning to others of less pretensions.

---

ART. VII.—*Delineation of the British Constitution, from the Origin to the present Period. By James Mullala, LL.D. F.R.S. Vol. I. 8vo. 7s. Bound.* Dublin.

TWO opposite opinions have been maintained on the subject of the work before us, with equal arrogance and dogmatism; the one, that we have no constitution at all; the other, that we have had our constitution from the time of Julius Cæsar. Both declarations are equally futile, equally designed to deceive the ignorant, and to pervert the judgement of those who ought to be better acquainted with political science. Every society of men, which can be distinguished from other societies, has a constitution peculiar to itself, though it may have no literal draught of it, or it be not expressed in definite charters; and such a constitution may be discovered with great, if not with equal, ease in the wigwams of the American Indians, the kraals of the Hottentots, the tents of the Arabs, the traveling waggons of the Tartars, as in the more complicated frames of European refinement, or the grand simplicity of the Chinese empire. On the other hand, to assert that we have had our existing constitution from the time of Julius Cæsar, is as ridiculous in the opposite extreme; for, instead of Julius Cæsar, the name of Adam might just as well be inserted, and the proposition would be equally true, and of equal importance. In the time of Julius Cæsar, the ancestors of the great bulk of the inhabitants of Great-Britain were wandering in the plains of Scythia; and the constitution of these tribes at that time might have been referred back to the æra of their great ancestor Japhet, who would probably have stated that some of his principles were derived from Adam, the common father of us all. The constitution, it is true, may be said to have sustained a great variation in the course of every anterior chiliad, or thousand years; yet, if we could extend our views to futurity, every succeeding chiliad would propably be found marked with equal deviations from the present and succeeding editions of this constitution, while few persons in the midst of

every change are found to calculate with sufficient examination the benefits derived from any constitution whatsoever on the happiness and prosperity of the country.

On reading the preface to this work, we were fearful the author had been led astray by the latter opinion, and expected to derive little entertainment or instruction from his speculations.

'I am sensible it will be deemed presumptuous in a man of humble talents, to attempt a delineation of the British constitution; a system which is conceived to be so complicated as scarcely to be understood, even by those who from their infancy have been initiated in the study of its mysteries. But at a crisis like the present, it becomes the indispensable duty of every individual to contribute as much as in him lies to the welfare and happiness of the society of which he is a member; and I imagine that I cannot serve my countrymen more, than by endeavouring to make them thoroughly acquainted with the principles of a constitution which hath so long been the envy and wonder of the world; and which, although so celebrated as the model of perfection, is, I apprehend, but yet little known to its admirers.' P. i.

'The mysteries of the constitution' is a term highly incorrect and inappropriate; the simplicity of the British constitution has no mysticity of any kind; and, in its construction, there is nothing which may not be comprehended, with very little attention, by the meanest capacity. Its principles are by no means difficult of solution; but the envy and wonder of the world have often and equally been misapplied upon this subject; and a vast variety of encomiums have been wasted, in pointing out its imaginary perfections, or such as, in reality and actual practice, have contributed very little to the positive liberty it secures to the people. If the writer had merely delineated the constitution in its state of present existence, we could have bestowed but a small portion of praise on his design or execution; but much learning and judgement are requisite to trace the transitions which have occurred in the varying constitutions by which this country has been governed at different periods, to show how each has grown out of its anterior, what accidental causes produced its present form, and what equally accidental, and probably equally unintentional, have a tendency to destroy it. In this latter respect, in particular, we cannot refrain from testifying the great satisfaction we have derived from the perusal of the work before us; but we must not enter into the investigation of its contents prior to our noticing a singularity at the end of the preface, which will excite a smile, with a mixture of pity, for our author's situation: nor must we be too severe on his conduct, when we recollect that he is an Irishman.

'I beg leave to inform my friends and truly respectable subscribers, that the publication would not have been so long delayed, nor published in volumes, but all at once, only I was for several weeks con-

fined to bed, the consequence of an unpleasant affair in which I was unfortunately implicated. My attachment to my sovereign, and my well-known regard for the constitution, had created me enemies: one of those called me out; but previous to the signal being given, which had mutually been agreed upon by the seconds, my antagonist discharged his pistol, and the shot had nearly proved mortal; nothing under God, but the great skill and dexterity of surgeons Griffith and Hallahan could have saved my life; from the line of direction the ball had taken in a vital and dangerous part, nothing but a well-directed and judicious operation could effect the wished-for purpose; for, after searching for the ball with the utmost professional skill, they found it necessary to make an artificial opening for the purpose of extraction. Surgeon Griffith, who attended me during the whole of my indisposition with that tenderness and humanity peculiar to himself, and with all the amiable qualities of the heart, he proved the depth of his medical talent and surgical ability.' P. xxi.

This mad trick of discharging pistols at each other, in honour of the constitution, may do very well on the other side of the water; but the writer would have better consulted his own honour and credit among those who have a due regard for the constitution in England, by concealing the anecdote, and patiently submitting to the pain he deserved for the violation of its laws. A man of his talents should have shown himself superior to vulgar prejudices, and have sedulously avoided an arbitration scarcely excusable in boys of eighteen or twenty years of age.

But our readers must not imagine that this Irish adventure, however it may affect the character of the writer in this individual instance, has had any general influence on his writings. In most other respects we find him cool, dispassionate, accurate, and learned. He has studied with great attention the English and collateral histories; he has seised on the material points which mark the progressive changes in the government and manners of the country; he has arranged his remarks in a very judicious manner, and made his publication equally entertaining and instructive. The history of the island, till the arrival of the Saxons, is enveloped in great obscurity; the constitution and manners of its inhabitants, previous to that period, must be looked for in the laws of the Romans and the customs of the ancient Gauls; the country, though civilised by the former, having retained a considerable portion of the manners of the latter people, who, upon overrunning the island, formed the ground-work of its legislation and constitution. To them we are indebted for the trial by jury, for national representation, division into counties, hundreds, tythings, for limited regal government, and the germs of every thing that is dear to an Englishman. This part of our history is, therefore, of great importance; and the manner in which it is here developed does considerable credit to the talents of the writer. A rude and incondite mass of warriors did not

create at once a regular constitution; the division of the country arose from accidental circumstances; the wisdom of the laws was the result of simple manners; and the trial by jury issued from the independence of a very small part of the community.

'When we compare our constitution with that of all the kingdoms on the continent of Europe, it seems reasonable to suppose that circumstances peculiarly fortunate must have united in the formation of so noble a fabric.

'It also seems natural to conclude that the Anglo-Saxon government must have included a portion of liberty as much greater than that of the surrounding nations, as our constitution is at present more free than any other European system of government.

'When, at the same time, we review the state of England in a remote age; the uniform jurisdiction and power possessed by every allodial proprietor; the division of the kingdom into various districts, subordinate one to another; the similarity of the powers exercised by the meetings of the tything, the hundred, and shires in their respective territories, and those of the wittenagemote over the whole kingdom; the analogy between the function of the tything-man, the hundreder, and the earl in their inferior departments, and that of the sovereign in his more exalted station; when we examine these and other particulars relative to the Anglo-Saxon government, in which we may observe so much order and regularity, such various regulations, nicely adjusted to one another, and designed for the most useful purposes; it is extremely natural to conclude that the whole has originated in much contrivance and penetration, and resulted from deep-formed views of policy. In both these conclusions we would undoubtedly be mistaken.

'When we contemplate the state of other European kingdoms about the same period, we can observe in each of them an intimate and minute resemblance, in point of practical system, to that of England, notwithstanding the small apparent intercourse of the inhabitants. We then are obliged to wave our former supposition, and to acknowledge that the regulations established in all these kingdoms proceeded from no artificial or complex systems of legislation, but were such as occurred to the people successively, for the supply of their immediate wants, and the removing of occasional inconveniences; and that the feudal constitution was every-where a species of natural growth, produced by the peculiar circumstances and situation of the community.

'The Anglo-Saxon government was not calculated in a peculiar manner to secure the liberty and the natural rights of society, although it underwent repeated alterations during the long period of its subsistence.

The king was never invested with absolute authority. A large body of landed proprietors originally possessed the supreme authority in the state; but the rest of the people were either slaves, or tenants at will.

'The number of those who participated in a share of the government was afterwards considerably diminished; at the same time that,

on the exaltation of the aristocracy, the lower orders of the community enjoyed more freedom and independence. The limitation of political power in the higher class was thus compensated by a small extension of liberty in the great body of the people.' P. 202.

We can easily allow to our author, in treating this part of his subject, that it is ridiculous to imagine the lawyers or judges of England were considerable enough to compose the principal part of the wittenagemote; but he seems to us to have deviated unnecessarily, and without authority, from the usual meaning assigned to the word *wite*, from which is derived *wight*, a term in common use with our more ancient writers.

'It is generally allowed, that the bishops and abbots, as well as the aldermen or governors of shires, were members of the wittenagemote; from which, the inference is obvious that, under the common designation of *wites* these two sets of people were comprehended. This we can easily explain. The word *wite* originally signifies a man of valour, or military prowess; and hence a man of rank, a nobleman.

'In a secondary sense it has been used to denote a wise man, from the usual connexion, in a rude age, between military skill and knowledge; as an old or grey-headed man is, according to the idiom of many languages, used to signify a ruler or governor.

'As far, therefore, as any conclusion can be drawn from the name of Wittenagemote, it is likely that this great council comprehended neither judges nor lawyers, considered in that capacity, but that it was composed of all the leading men in the kingdom; among which, the dignified clergy, and the governors of shires, if not particularly mentioned, were always included.' P. 113.

We should apprehend, that the term *wite* or *wight* has its origin in the Teutonic *witen* or *witten*, a verb, which, with many of its correlatives, is to be ascribed to the *video* of the Latins, and the εἰδω of the Greeks; that it originally meant *to see* or *perceive;* and, by a common transition from the ocular to the mental powers, it was soon transferred from the perception of the eye to that of the intellect, and denoted a wise man; from men of which supposed capacity, and not of superior rank or stress, the wittenagemote derived its existence.

The form of government and manners of the people were not so much changed by the conquest as is generally imagined; and the descendents of the invaders and invaded were, in the course of a few reigns, united in one common interest. Hence they gradually drew from the crown very valuable concessions; and the Great Charter, and that of the Forest, notwithstanding they may be regarded as proofs rather of the haughty spirit of the barons than of a regard for the rights of the people, became, nevertheless, the instruments of rising and progressive freedom.

'Whoever examines into the circumstances in which these great charters were procured, and into the general circumstances of the

country at that time, will easily discern that the parties concerned in them were not actuated by the most liberal principles, and that it was not so much their intention to secure the liberties of the people at large, as to establish the privileges of a few individuals.

'A great tyrant on the one side, and a number of petty tyrants on the other, seem to have divided the kingdom; and the great body of the people, oppressed on all hands, were indebted for any privileges conferred upon them to the jealousy of their masters, who, by limiting the authority of each other over their vassals, produced a reciprocal diminution of their power.

'But although the freedom of the people was not intended in those charters, yet it was eventually secured to them; for when the lower ranks of people were subsequently enabled, by industry and the progress of arts, to emerge from their inferior condition, and to acquire opulence, they were by degrees admitted to the same privileges which had been claimed by men of independent fortunes, and consequently found themselves entitled to the advantage of that free government which was already established.

'Thus the limitations of arbitrary power, which had been principally designed to promote the interest of the nobles, were, by a change of circumstances, rendered equally conducive to the community at large, as if they had originally sprung from the most exalted spirit of patriotism.

'When the commons, in a later period, were inclined to make farther efforts for securing their natural rights, and for extending the blessings of civil liberty, they found it no small advantage to have an ancient written record, which had received the sanction of past ages, and to which they could appeal, for ascertaining the boundaries of the prerogative.' P. 239.

The enfranchisement of slaves or villains, the creation of a trading interest, the destruction of baronial castles, the usurpations of the church, the introduction of burgesses into *parliament* (the French word adopted instead of the old term wittenagemote), all had an influence upon the form of government; and accidental causes generated the division into the two chambers of parliament, as well as a reservation of the king's negative on all their debates.

'From the original mode of conducting bills for a new law, in the form of a petition to the king, the custom derived that they should originate with parliament, and that the king should give no opinion relative to them till they had received the approbation of that assembly.

'As the king had no wish to abridge his own discretionary powers, it would not be supposed that a bill for that purpose would be suggested by the crown.

'All that could be expected from the king, in a matter of this kind, was, that he would be graciously pleased to comply with the desires of his people, communicated to him by the parliament: and when a bill had come before parliament, it was not considered as yet the request of the nation, and consequently could not be regularly

presented to the king, for the royal assent, until the two houses had given their authority for that measure.

'Such was the original basis of a maxim which is now considered as one of the chief pillars of the British constitution; that the king's negative upon bills shall not be interposed, until they have undergone the final determination of both houses of parliament; and, as a consequence of this, that he shall not take notice of any bill depending in parliament, until it shall be communicated to him, in the usual and parliamentary manner.

'The effect of this maxim, in supporting the democratical part of the government, is now generally admitted; but there is no reason to believe that it was dictated by a regard to the people, or with a view of increasing their weight in the exertions of the legislature.

'It is, on the contrary, probable that the form of procedure already mentioned was conceived to be advantageous, or at least respectful to the sovereign, as it prevented his being troubled with solicitation to limit his power, until there existed an immediate necessity for it. In fact, this mode of conducting the business of the legislature was not the effect of any preconceived system of policy, nor the consequence of any claim of right, either on the part of the sovereign or parliament; it arose solely from the nature of the matter under deliberation, which was most aptly brought to an issue in that manner; and as this gave rise to a custom which was observed with a certain degree of uniformity, so, in the lapse of ages, the ancient usage, whose utility became daily more perceptible, was invested with complete legal authority.

'However, it deserves attention, that what has been observed, with respect to the ordinary mode of legislation, is not applicable to the imposition of taxes.

'The consequence of a statute was to limit and determine the conduct of the king; it consequently implied a privilege acquired by the people: that of taxation was to bestow some emolument on the crown, and to impose a correspondent burthen on the nation; wherefore an opposite course was pursued in those branches of government. The people were considered to be the prime movers in the former; the king, in the latter.

'The proposal for a new law proceeded upon a petition from the parliament to the crown. The proposal for a new tax proceeded on a request of the crown to parliament. Each of these parties having something to bestow which the other wanted, they both became reserved in their turn, and, by their address and perseverance, extorted reciprocal advantages. Upon this principle, that taxes are granted by parliament at the instance of the king, is founded a rule at present, "that the house of commons shall receive no petition for any sum of money, relating to the public service, but what is recommended from the crown." And when a money-bill is offered to that house, it is necessary that the chancellor of the exchequer, or some other officer of the crown, should declare "that his majesty, having been informed of the contents of the said bill, recommends the same to the consideration of the house."

'A bill for the imposition of taxes, after this preliminary step, is conducted in the same course, and passes through similar stages,

with every other matter which comes under the determination of parliament.' P. 133.

From the pleasure we have received in the perusal of this volume, we anticipate a great fund of instruction, as the author approaches nearer to the times in which our constitution began to be settled on firmer principles; and the 'Dissertation,' promised to us, 'on the comparative merits of the different authorities that have been resorted to in the course of this work,' will, we are persuaded, be of considerable utility to every student of English history: and, as the writer has shown himself so well qualified to discuss this important subject, we trust it will not be broken off in the middle, like the famed story of the bear and fiddle, by another Irish adventure.

---

ART. VI.—*Critical Remarks on the Hebrew Scriptures, &c. (Concluded from p. 176 of the present Volume.)*

IN pursuing our review of this work, the next subject we shall note for remark is the prediction of Balaam, which is generally apprehended to foretell the Messiah. The doctor is, however, of a different opinion.

NUMBERS, xxiv. 17.—'*A star traced from Jacob.* דרך כוכב מיעקוב. It is well known that *comets*, which were confounded with stars, were considered by the ancients as prognostics of great events, particularly of the birth of great kings.' P. 399.

Would Dr. Geddes deem it an unreasonable question, if an inquisitive reader should be solicitous to learn whence this well known prognostic arose. To us it would have merited the doctor's inquiry, whether it might not have arisen from this very prediction? If Dr. Geddes could have carried it higher, he certainly ought to have done so; and if he could not, it was his duty to have added, that the instance in question was the FIRST of the kind. Thus much he owed to both author and reader.

The doctor observes, 'it is well known that *comets* were confounded with stars,' taking for granted that the star of Balaam was a comet: but, whether star or comet, is the same to Dr. Geddes, as with the appearance of either, to confirm the prediction, he never concerns himself after; though he took care to tell us that comets were considered 'as *prognostics of great events*, and PARTICULARLY *of the birth of great kings.*' The doctor, indeed, is so far from considering this *comet* [upon what authority, however, כוכב is so rendered, we should be glad to have learnt] as a *prognostic*, that, in the next passage, it becomes *the* THING ITSELF *signified*; it being added, that this comet '*will*

*consume the whiskers of Moab;'* for Dr. Geddes so translates מחץ פאתי. מואב; and thus goes on:—

'The Sam. printed text has פתי; but 2 MSS. read as Heb. And now for the meaning. Most of the ancients, after Sep. give to פאתי the signification of *chiefs*, *princes*, or the like. They are supposed to have read פחתי. But I am persuaded that פאתי is the genuine reading, and to be taken here in the same sense as in Jeremiah 48. 45. where a very similar passage occurs: and in both places, it is my belief, the word signifies *whiskers*. Compare the Chald. and Syr. פאתא.—It is well known, that whiskers, in the East, were, and still are, deemed the greatest ornament of the face; and to destroy or disgrace them was considered as a most grievous affront. By giving this meaning to פאתי, the parallelism is evident, and the figure highly poetical. The comet is to burn the whiskers, the sceptre is to break the crown of Moab: I say *crown*, because I am persuaded that the Samaritan קדקד is the genuine reading; and that both it and פאתי are governed by the same verb מחץ. I am even of opinion, that almost all the ancient interpreters read קדקד, although they took it to be a verb; for, how out of קרקר, the present Heb. reading, they could draw the idea of *smiting*, *domineering*, *subduing*, &c. I cannot possibly conceive; whereas all these meanings are found in the root קרד.' P. 399.

Now, as from the doctor's text, and a subsequent note, he intimates, with an ITALIC sneer, that the *oracle* in question—written doubtless *after the event*—'REFERS (for that term is selected to enforce this intimation) to the cruel victories of David, recorded in 2 Sam. chap. viii. above quoted, and in 1 Chron. xviii. 2.'—it may fairly be asked, How the passage in Jeremiah can be authority for altering a text in the Pentateuch, unless the passage in Jeremiah were prior? which it will behove the doctor to prove, before we can possibly admit it.—And we, again, will ask, if מחץ be appropriate to the comet in BURNING *whiskers*, how is it proper to the sceptre in BREAKING *crowns*?

'Ver. 17. *The sons of sedition.* The Heb. is בני שת; in our common translation rendered "the children of Seth:" and so indeed most of the ancient and modern versions.—But what, pray, has *Seth*, or *Sheth*, to do with Moab? I am convinced that שת here means *sedition*, *contempt*, *rebellion*, &c. See the root שאה, the Arab. שתאת, the Sam. שתשת, the Æthiopic SHAT, and the Chald. and Syr. שוט; and comp. Jerem. in the verse already quoted; where he has שאן instead of שת.—The Moabites were subdued by David, and made tributaries to Israel: but after the death of Ahab they rebelled; but were re-conquered by the joint efforts of Joram and Joshaphat, assisted by the king of Edom. Comp. 2 Sam. 8. 2. and 2 Kings 3. 4. to 24. But under the denomination of בני שת, *sons of sedition*, may be designed every *turbulent* neighbour.' P. 400.

Against this new interpretation of בני שת, there are insuperable objections, not only from the reference to Jeremiah as before, (where the reading is not שת but שאן); but, because good reasons can be assigned, to show that the conquests of David had no concern with the subject.

'Ver. 19. *A prince descending from Jacob.* The text has only וירד מיעקב, by Montanus rendered, *Et dominabitur de Jahacob*; by our English translators, "Out of Jacob shall come he that shall have dominion." I believe the Septuagint have perfectly well rendered the comma: Και εξεγερθησεται εξ Ιακωβ. So Onk. ויהוה חד מדבית יעקב: *And one shall spring from the house of Jacob*—and Syr. ונחת מן יעקוב: *Et descendet de Jacob.*—The Tharg. of Babylon has supplied the very word which I have used in my version: וירד ויקום שליט מדבית יעקב, *A prince shall descend, and arise from the house of Jacob.*—It is true that Jerom, Saadias, and the other translators, took ירד in the sense of *dominari*: and Dathe has followed them: *Tum dominabitur aliquis ex Jacobitis.* In my version I have conjoined both acceptations.' P. 400.

We have here a notable expedient for giving the precise sense of a text; and we recommend it, as a canon, to future translators. It is this: 'When two critics differ as to the meaning of the original, their successor should conjoin the acceptations of *both*.'—From *the descent of the prince from Jacob*, mentioned in this verse, it follows, according to Dr. Geddes, that the *comet*, *sceptre*, and *David*, were *one* and the *same*.

In the seventh chapter of Duteronomy, a subject occurs which the doctor seems delighted to treat. For the novelty of its contents we shall insert the discussion.

'Ver. 2. *Ye shall devote them* [the Chanaanite nations] *to utter destruction*—החרים תחרים אתם—Sep. αφανισμω αφανιεις αυτους—Vulg. *percuties eas* [gentes] *usque ad internecionem*—Onk. גמירא ותמחינון גמרא—and still more explicitly Tharg. תגמה יתהון ומחרמו תחרמון יתהון בשמתא ד"—Syr. תגמרון יתהון אנון—and so equivalently both Arabs, Pers. and Gr. Ven. whose version is as strong as any, βαλεις τ' αυτους τω εξολοθρευειν εξολοθρευσεις αυτους.—In short, nothing can be clearer than that the utter destruction of the seven Chanaanite nations is enjoined in this Mosaïcal precept: nor was this doubted by any translator, interpreter, or commentator, till toward the close of the eighteenth century. They all tell us, indeed, that it was a *reasonable*, a *necessary* command; for that "to spare such rank, incurable idolaters would have been cruelty to themselves and their posterity." But still they allow that such a precept was given, and endeavour to justify it by reasonings which, to me, appear frivolous in the extreme, and totally repugnant to the evangelical doctrines of Christianity.—It was this consideration, I doubt not, which induced some very modern writers to maintain that such an injunction was never given!

'Not so the candid, the learned, the liberal prelate, who wrote, a short while ago, an Apology for the Bible. He was conscious that

the fact could not be controverted; but he endeavours to justify it on principles which at first sight seem specious; but which, in my apprehension, will not bear a minute inspection. He is astonished that the author of The Age of Reason "should attempt to disparage the Bible by bringing forward the *exploded* and *frequently refuted* objection of Morgan, Tindal, and Bolingbroke—You profess yourself (adds he) to be a Deist, and to believe that there is a God, who created the universe and established the laws of nature, by which it is sustained in existence. You profess, that from the contemplation of the works of God you derive a knowledge of his attributes; and you reject the Bible, because it ascribes to God things inconsistent (as you suppose) with the attributes which you have discovered to belong to him; and, in particular, you think it repugnant to his moral justice, that he should doom to destruction the crying or smiling infants of the Chanaanites. Why do you not maintain it to be repugnant to his moral justice, that he should suffer crying or smiling infants to be swallowed up by an earthquake, drowned by an inundation, consumed by a fire, starved by a famine, or destroyed by a pestilence? The word of God is in perfect harmony with his works: crying or smiling infants are subjected to death in both.....When Catania, Lima, and Lisbon, were severally destroyed by earthquakes, men with their wives, their sons and their little ones, were swallowed up alive: why do you not spurn, as spurious, the book of nature, in which this fact is certainly written, and from the perusal of which you infer the moral justice of God?"

'In the preface to the second volume of my version of the Bible, (p. ii. in the note) I have said, that it grieved me to read in a late elegant Apology so lame a justification of the passage in question; and added: "I *am tempted* sometimes *to think* that the R. R. author must have felt the weakness of his argument, and seen the disparity of his simile." I used the words *tempted to think*, because I could not bring myself to believe that the bishop *did* feel the weakness of his argument. I am persuaded that he considered it as a strong argument; and, perhaps, what I am now going to write against it will not move him to alter his opinion. I will, however, make an essay.

'In the first place, then, I trust his lordship will agree with me, that there is but one clear, explicit, immutable law of moral equity, implanted by the wise Creator in the human mind: *Alteri ne feceris, quod tibi fieri non vis.* It is this law which, independent of any revelation, tells us, that we must not steal, we must not kill, we must not injure our neighbour: and if this hold good, and be obligatory with respect to individuals, it must be equally so with regard to whole families, tribes, and nations, which are composed of individuals. According to this, I believe indisputable, principle, the Israelitic nation had no more right to invade, dispossess, and exterminate the Chanaanites, than these had to invade, dispossess, and exterminate the Israelites. "True (it will possibly be said) in the abstract, and bating particular circumstances: but God, who is the sovereign arbiter of the world, and author of the laws of nature, whether physical or moral, may, when he pleases and sees occasion, dispense with the general moral law *Alteri ne feceris*, &c. and give a special positive

law in direct opposition to it."—I might obstinately deny this assertion, and maintain that he could not, without being himself unjust: nor do I see what solid argument could be adduced to prove the contrary; for I presume my antagonist would hardly have recourse to the argument of tyrants: *Such is our pleasure.*—But, granting that an arbitrary, omnipotent Being have a right to transfer my property to you, and authorise you to murder me and mine offspring for the purpose of securing that transfer, I must have strong proofs, indeed, of the existence of such an instrument, and of its having been issued from the chancery of heaven, before I could *submit* to so uncommon a dispensation of providence: and even then, I fear, it would only be a bare submission: my soul would interiorly murmur, and wonder how this could be reconcileable with the justice of that Supreme Being, who has so deeply imprinted on the tablet of my mind the idea, that no one is to do to another what he wishes not to be done to himself.—"But what if I were an egregious sinner, who had deserved to be dispossessed of my property and bereaved of my life?"—An egregious sinner! In the estimation of whom? Not surely of you my destroyer! I should consider you as a partial judge, and might deem you as great a sinner as myself. "Not merely in my estimation (you reply), but in the estimation of God; who, knowing all things, must know that you are a most enormous sinner, deserving death and destruction."—Be it so—he has a thousand ways and means to destroy me, without employing you as an instrument—and before I believe that he has chosen you for that purpose, I must have far other proofs than your bare assertion; especially as I find that you are interested in the matter, and are to reap the fruits of my destruction. But if the order, which you say you have received from heaven, be to dispossess and destroy not only my *guilty* self, but my *guiltless* infants and posterity, I become still more astonished and more incredulous, and desire to see and peruse your commission, with the broad seal of heaven upon it:—nay, were you to produce such a commission in the name of heaven, I should insist on its being a fabrication of your own, and that it could not come from the same God who says, *that children shall not be punished for the sins of their fathers.*

'Now, as we have no other proof that God commanded Moses and his Israelites (who themselves were so sinful a people that he often threatened to destroy them) to dispossess and extirpate the Chanaanites, man, woman, and infant, than the bare assertion of an Hebrew historian—suppose it even to be Moses himself—the Chanaanites must have necessarily considered the God of Moses as an unjust God, or believed that the pretended command to dispossess and exterminate them was a counterfeit.—We are then, I think, warranted to say that it is infinitely more probable that God never gave such an order, so opposite to the general law of moral equity, than that he dispensed with this law, in favour of a particular nation, with respect to the Chanaanites; howsoever great their sins or grievous their abominations: which, by the bye, we know only from the same partial interested pen that has recorded the decree of their proscription.

'I cannot help dwelling yet a little longer on this topic. Suppose *yourself*, my lord bishop of Landaff, to be living in the quiet possession of your own estate in Westmoreland; and then suppose *me* to be a Gallican refugee bishop, escaped from the tyranny of Robespierre, and the fangs of French atheism. Were I, in this supposition, to claim your inheritance, under the pretext that I had a special commission from God to dispossess and extirpate you and your race, would you not call in question the veracity of the document? Would you tamely submit to be despoiled of your life and fortune, and not try to repel force by force? In vain might I allege that you were a grievous sinner, a vile obstinate heretic, an enemy to God and his spouse the church, and on that account meriting extermination; you would, with indignation, deny the charge, and perhaps retaliate, and call me, in return, a superstitious idolater.—Deem not this a jocular argument—I meant it as a very serious one.

'The Chanaanites were in much the same predicament, when they were invaded by the Israelites, as your lordship would be if invaded by a Romish fugitive bishop: nor am I very sure but that the Romish bishop could produce even more plausible arguments for the expulsion and perdition of an English heretic than the Israelites could bring for expelling and extirpating the idolatrous Chanaanites. At least, he would not fail to make use of the command to exterminate the Chanaanites, as a divine precedent, which he might safely follow: and in this he would do no more than has been done, not only by the religionists of Rome, but by those of all other denominations, when they had a mind to persecute and proscribe those of a different creed. And this naturally leads me to take notice of the bishop's simile, which, in my opinion, halts exceedingly.

'When the earthquake swallows up, the sea overwhelms, the fire consumes, the famine starves, or the plague destroys, we are totally ignorant by what laws of nature, or concatenation of causes, the desolating events happen: we see only the dismal effects; and no consequence can rationally be deduced from them against the principle of moral equity, so often before mentioned. From such events no one could derive an argument for the lawfulness of dispossessing or injuring his neighbour, either in his property or person; no argument for the lawfulness of burying alive idolaters, drowning heretics, starving atheists, &c. &c. From such events the famous bishop of Cagliari, Lucifer, could never have inferred, that it was the duty of the orthodox to kill the Arians, and even the emperor Constantius, who abetted Arianism. From the earthquakes at Catania, Lima, Lisbon, the Holy Inquisition could never have concluded that it was lawful and meritorious to burn the bodies and confiscate the goods of Moors, Jews, and wicked infidels. But the express command of God to extirpate whole nations on account of their sins, and to transfer their goods and chattels to another chosen people, was a precedent exactly suited to their sanguinary purposes, and triumphantly employed by them to obviate all objections, on the score of cruelty.

'The same inferential arguments were made use of in the Valdensian persecution, and indeed in every persecution for the sake of

religion, since persecution began. The supposed divine commission given to the Jews to extirpate the Chanaanites, and Amalekites, has ever been, in the mouths of Judaïsing Christians, a positive and plausible plea for committing the most cruel injustices.

'On the whole, then, I must repeat it; I cannot possibly believe that ever a just, benevolent Being, such as I conceive *my* God to be, gave such a sanguinary order to Moses and the Israelites, as in the book of Deuteronomy he is said to have given.—Let others think otherwise: I will not quarrel with them on that account: nor shall I again return to the subject, on any provocation.' P. 422.

The consideration of these arguments is more pertinent to the bishop of Llandaff than to us; but, as his lordship, in answer to *Tom Paine*, has, like Dr. Geddes, resolved to be silent, we trust it will not be thought impertinent to venture some remarks.

The doctor's compliment, on approaching the bishop, appears a little extraordinary. 'I am tempted sometimes to think that the right reverend author must have felt the weakness of the foregoing argument, and seen the disparity of his simile;' but adds, 'I used the words *tempted to think*, because I could not bring myself to believe that the bishop *did* feel the weakness of his argument.' The inference, then, hence to be drawn, is, whatever the bishop *felt* in proposing his argument, or the doctor was *tempted to think* on reading it, the argument itself must rest on its own merits. The positions of Dr. Geddes from which to assault it, are, we conceive, so strangely taken, that not a shot from them can reach to its outworks. The laws of relative justice between man and man, whether applied to individuals or nations, we will admit to be such as the doctor has stated them: but what concern has this with the subject? The true question is, Whether God, as creator and moral governor of mankind, have not a paramount authority over them? and whether his goodness or justice, for any purpose approved of by himself, be to be arraigned by his creatures, who neither know the grounds of his procedure, nor, if they knew, could possibly judge of them?—Will doctor Geddes think himself defensible in strenuously asserting the reverse?

> Will he snatch from his hand the balance and the rod?
> Re-judge his justice? be the God of God?

or make a merit of granting, that an omnipotent Being, the proprietor of the universe, has a right to the distribution of his property as he pleases?—It might have been recollected, that 'When the Most High divided to the nations their inheritance, when he separated the sons of Adam, he set the bounds of the people *according to the number of the children of Israel?*' This admitted, the land, at least, occupied by the Canaanites was not their *own*. We insist not, however, on this argument, as Dr. Geddes, we foresee, might object to the authority.—But, the doctor contends, 'granting that an arbitrary, omnipotent Being

have a right to transfer my property to you, and authorise you to murder me and my offspring for the purpose of securing that transfer, I must have strong proofs indeed of the existence of such an instrument, and of its having issued from the chancery of heaven, before I could *submit* to so uncommon a dispensation of providence.'—And is this, Dr. Geddes, what you call argument? Is it at all relevant to the merits of the question? On the contrary, it has not any concern with it. Were the Canaanites called upon for acquiescence in the case? Did the Israelites go to them with the formality of a commission, and require them to submit, in the name of heaven? Did they inquire, if they were egregious sinners, before they assailed them? or, because they deemed them so, claim a right to destroy them? Nothing of the kind is stated to have happened. It was a positive injunction they were commissioned to perform, and, on specific grounds, were enjoined to perform it.—All the doctor adds, then, is by way of amplification, and, wanting not artifice to blind and mislead, *tempts us to think* 'he must have *felt* the weakness of it as an argument, and seen the disparity of his own simile.'

In the next paragraph Dr. Geddes is more explicit:—'As we have no other proof that God commanded Moses and his Israelites (who themselves were so sinful a people that he often threatened to destroy them) to dispossess and extirpate the Canaanites, man, woman, and infant, than the bare assertion of an Hebrew historian—suppose it even to be Moses himself—the Canaanites must have necessarily considered the God of Moses as an unjust God, or believed that the pretended command to dispossess and exterminate them was a counterfeit.' Never was sophistry more execrable obtruded for argument? What! because WE *have no other proof* of the divine command than the assertion of an Hebrew historian, must therefore the *Canaanites have* NECESSARILY CONSIDERED *the God of Moses as* UNJUST, or *believed the* PRETENDED *command* COUNTERFEIT?—How exquisite a logician!—The historical evidence to us is one thing; the circumstances concomitant with the command, and which confirmed its authenticity, another. Had the Canaanites no proof of its authority in what happened antecedently to and at the siege of Jericho? the taking of Aï? the overthrow of the confederate kings? 'when *they* were more which died with *hailstones*, than they whom the children of Israel slew with the sword'—and the spirit of dismay which took possession of them, and caused these Canaanites to flee in every direction? Such are considerations, as far as we can judge, that must have necessarily produced *the deepest conviction;* but, whatever were their effect in this point of view, we must again insist, is foreign to the subject. As to the '*bare assertion* of an Hebrew historian—suppose it to have been Moses himself—' the merits

of the question rest not on this ground. The concurrent attestations of the Hebrew nation confirm it; a preceding, continuous, and subsequent train of prophecies and of miracles have established the fact: and, till Dr. Geddes hath produced, in his *General Preface*, such arguments as shall invalidate the authority of this Hebrew historian, or disprove the inspiration of Moses, we are persuaded nothing will shake our conviction.

As to the case which the doctor puts between my lord of Llandaff and himself, in the character of a Gallican bishop, however seriously intended, it appears to us neither serious nor jocular, but altogether ridiculous. The doctor is 'not very sure but that the Romish bishop could produce *even more plausible arguments for the expulsion and perdition of an* English *heretic*, than the Israelites could bring for expelling and extirpating the idolatrous Canaanites;' but, 'at least,' it is added, '*he would not fail to make use of the command to exterminate the Canaanites*, as a DIVINE PRECEDENT, which *he might* SAFELY *follow*.' Thus much for Dr. Geddes as a Romish fugitive bishop! whom we consign, with his claims, to the reader's attention. What the doctor's more plausible arguments are, we will not venture to conjecture, and therefore say nothing respecting their weight.

In the next paragraph, Dr. Geddes argues, as before, on the same irrelevant position, and consequently as we contend, not at all to the purpose. Nor can the misapplication of any principle or example sanction the abuse to which they are perverted. Conclusions, therefore, like the doctor's, drawn from such abuse, must be deemed absurd, not to say impious.

To the summing up of the argument we cannot but revert. 'On the whole, then, I must repeat it; I cannot possibly believe that even a just, benevolent Being, such as I conceive MY God to be, gave such a sanguinary order to Moses and the Israelites as in the book of Deuteronomy he is said to have given.' Whatever may exist in the possibility of Dr. Geddes's faith, it is not for us to determine. No faith, however, is legitimate that is not deduced from right principles and rational deductions. In the present case, the true ground of the question is, not what sort of a *God* Dr. Geddes's is, but whether the extirpation in question did really take place? and, if it did, whether it were in consequence of a divine command? If it never took place, the controversy would be ended by falsifying the narrative which contains the relation. But, though the reality of the fact cannot be repelled, nor the truth of the history disproved, the command is yet open to another criterion; namely, whether it be reconcilable to the perfections of the governor of the universe to inflict on the creatures of his hand the punishment in question, or employ one nation of men to extirpate another? Here the bishop's simile is so far from halting, that, to us, it appears

to stand firm on all four. It will not be denied that one nation has often extirpated another; instances on record most decidedly prove it; and though in no such case of excision an express command from God were alleged, yet, in respect to A FIRST CAUSE, *permission* IS COMMANDING.

The last page of this volume contains Latin lines, 'which were made in answer to a particular friend, who requested me,' says Dr. Geddes, 'to tell him whether I thought Moses to have been inspired?' As to the lines themselves, we confess, neither the Latin nor the verse is more to our taste than the meaning they were meant to convey. In them, Dr. Geddes denies the inspiration of Moses, yet professes to believe in Christ, who expressly averred that Moses was inspired in the delivery of a prediction *fulfilled* in himself.

---

ART. IX.—*The Art of Teaching, or communicating Instruction, examined, methodised, and facilitated, as well as applied to all the Branches of Scholastic Education. By David Morrice.* 8vo. 9*s. Boards.* Lackington *and* Co. 1801.

AMONG the numerous writers upon education, few have enjoyed the advantages of experience in conjunction with the theory they may have embraced. The author of the work before us has been employed throughout the greater part of his life in the useful and honourable art of instruction. He speaks from his own experience; he relates what he has himself observed: he has felt the effects of the variable dispositions of the young, and is conscious of the hardships to which subaltern instructors are subject, from the caprice or tyranny of their principals. Hence his remarks strike home with great weight and authority; and we can recommend them, for their own solidity, as well as from the use he has made of theoretic writers, to parents and schoolmasters. The former, indeed, are quite as much interested in the contents of this work as the latter, since they may hence derive not only useful hints respecting the talents of their children and the mode of directing them, but very important advice in the choice of their schools, and the degree of attention to be paid to their complaints, so frequently alleged against the principal or his assistants.

The work is divided into six chapters. In the first are given general remarks on the art of teaching, and the tempers, dispositions, and talents of children. The second considers the application of this art to boarding and day schools, private tuition, and persons studying without a tutor. The third applies the art to several branches of education, as reading, writing, arithmetic, and English grammar. The fourth is occupied with the classics

and the French language. The fifth treats on merchants' accompts, geography, chronology, history, and mathematics. The sixth is devoted to religion: and the whole is concluded with an essay on education, in which the situation of assistants is treated in a manner highly creditable to the feelings of the writer, and particularly entitled to the notice of their principals. We could have wished for a better and fuller recommendation of school-books than we find in the appendix; but we are happy in being able to assert that books of this description, which have been hitherto published in a very faulty and culpable manner, are likely in future to undergo a proper inspection before they are delivered into the hands of children. It is, we understand, the intention of the Committee of Schoolmasters (a very useful institution) to pay particular regard to this very necessary instrument in their profession. This is to be accomplished without injury to the booksellers, who will, however, be under the necessity of taking care that the books which are sold to the society be edited correctly—an advantage which can scarcely be obtained, unless the name of the editor be affixed to every edition. We may observe, also, that the use of a small type is very injurious to children; and that, under the idea of making a cheap book, or one that will contain a vast quantity of matter, a very dear volume is put into their hands, for they are wearied and disgusted with it before they have read it half through. Small books are, moreover, the properest size for children, who generally feel a laudable degree of satisfaction in counting up the number of books which form their library.

The writer's method in communicating the principles of his art may be seen in the following extract on a branch of education very much neglected by the higher orders, as well as by scholars—though the first scholar in this country is not less distinguished by his neatness in copying, whether Greek or English, than for the powers of his memory and the extent of his erudition.

'I have often thought that the hand-writing of every person is a kind of index of the mind; and that, from the fine strokes, exactness, symmetry, and correctness of the writing, the fair and unsullied state of the paper, and the neatness with which a letter is folded, superscribed, and sealed, a very just corresponding idea of the writer's mental disposition, habits of neatness, and method, might be formed; and I have found this observation to hold good in particular with respect to the fair sex.

'When I see a letter clumsily folded up, the paper wrinkled and blotted, a bit of a wafer made use of for a whole one, or a dab of coarse wax, half impressed with the writer's seal, instead of a clear deep impression on fine wax, and the direction scrawled as if it were done with a skewer, I naturally conclude that the writer is careless and slovenly in every thing else; for those who have once acquired

habits of neatness and exactness can never throw them off, nor divest themselves of them.

'The same idea may be pursued still further, and the internal contents of a letter may enable the peruser to form some notion of the writer's literary abilities, moral sentiments, disposition of mind, and accuracy of method in business: for if the style is vulgar and ungrammatical, loose and negligent; the sentiments coarse, selfish, and unfair; the language hasty and petulant; the several points he writes about irregularly introduced, unconnected, and diffuse; there is very good reason for thinking that he is badly educated, unjust in his dealings, passionate in his temper, and incorrect in his business.' P. 171.

On the mechanical part of the art we meet with the following just remarks.

'The first thing to be considered is the initiatory practice of writing, and what that principle consists in.

'To draw straight but oblique or sloping strokes is the first attempt the pupil is very properly taught to make. The book should be so ruled that the length of these strokes should not be too great for the size of the hand that is to draw them, or so as to strain the exertion of it beyond the limit of that command or power which it naturally possesses; nor, on the other hand, should they be so short as to confine and cramp the pupil's fingers, and bring him into a habit of restraining the measure of his command of hand, in drawing strokes to the full length or extent of that power, without shifting or straining the entire position of the hand itself, which should always remain fixed, resting on the third and fourth finger, and leave the two fore-fingers and thumb to play with ease and freedom.

'It is next a matter of question, whether it is useful or not to the pupil for the teacher to pencil the strokes for him at first, till he has acquired a habit from practice of drawing them straight and correctly. As I consider writing to be a mere mechanical art, improveable by habit and practice, I am in favour of the strokes being penciled at first; and, when that has been used for some time, to cross-rule the page with oblique lines, upon an angle of forty-five degrees, which is the proper measure or degree of the inclination of a stroke in writing; and then let him slope the strokes himself parallel or even with those lines, so that he will have a considerable guide to assist his eye; for the eye is the only guide he will afterwards have, as he leaves off the use of plummet or pencil lines, which are only the young penman's leading-strings.

'Before, however, the pupil is suffered to attempt to put the pen to paper, he must be taught to sit in the proper posture, and to hold the pen right; and in this early stage of the business too much attention cannot be paid to these two circumstances; for if he is suffered to begin with wrong habits, they will grow upon him, and he will not be able to get the better of them without a great deal of after-care and trouble; prevention is always better than remedy.

Two parts of an action should never be taught at the same time, if they can possibly be separated, as in this case they can; therefore the posture and the holding the pen properly should be first learnt,

before the pupil dips it in the ink to proceed further. Let the height and slope of the desk, and the height of the chair or form he sits upon, be such as suit the pupil's size and height, so that he may sit with ease, and that the improper height of the former may not oblige him to press his breast against the edges, or strain to reach his copy-book, which should be placed exactly square with the desk or table, and always kept in that position, the left arm being pressed towards the side, the body and head erect, and the right arm also close to the right side; the back of the hand turned upwards in a direct line with the arm, and the pen held between the thumb and the two fore-fingers, at the distance of half an inch, more or less (according to the strength of the fingers), from the point, which should be placed to the paper in a straight line from the right shoulder, and the back or outward curve turned exactly upwards. The point of a beginner's pen should always be broad, and the slit long.

'This is the right position of the body, paper, and pen; and whenever he alters that position in any the most trifling respect, the teacher, whom I suppose to be carefully watching his motions, should instantly set him right, and make him keep so.

In schools, where there are a variety of pupils differing in age, make, and height, there should be three different heights of desks, and the slopes or inclinations such as to prevent the inconveniences before stated; and this circumstance should be particularly attended to with respect to females, as they must naturally be more inconvenienced by an uneasy posture, and the pressure of the breast against the edges of the desk, than boys. There should be small narrow rims to the desks, to prevent the books sliding off; but they should not be so high as to render them uneasy to the pupil's arms. Every desk should have a footboard, that the pupils may sit with the more ease, have a better command of the pen, and not be obliged to press the body against the desk for support, while the legs are suspended from the form, without any relief for that uneasy posture: in short, the footboard, the height of the desk, and the chair or form, should so correspond as to enable the pupil to sit quite at ease, and not to strain the arms or breast in reaching the paper, or suspend the legs because they cannot reach the footboard or rail.

'Where young people are privately taught at home, it is a very bad practice to make them write on a flat table: a common desk, made of deal, covered with green baize, and fitted in point of slope and height to the pupil's size, with a footboard or railing, is not very expensive, and would prove far more convenient to the pupil than a mahogany table, even with a slope desk placed upon it, as it is sometimes done. A stool, with a stuffed bottom, and covered with leather, might also be made to correspond with the desk and footboard. Indeed every thing should be done to render the posture easy to the pupil, and to prevent injury to the breast by compression against the desk; for if the desk is too high, it has that bad effect; and if it is too low, it will give the child a habit of stooping: hence the necessity of fitting these things exactly to his size.' P. 173.

We cannot flatter the author so much for his instructions on English grammar; since, though his precepts on the art of

spelling be very judicious, when he advances to the division of words and their changes, he falls into the vulgar error of authors on grammar. Hence we find six cases to our nouns, because the Latin has that number; five moods to the verb, and six tenses, among which are a first and a second future, than which nothing can be more preposterous. The whole of this part requires revision, particularly the instances of interjections; on which, as on several other topics, we pointedly recommend to the author an attentive perusal of the Diversions of Purley.

Custom and prejudice will not permit the masters of great schools to avail themselves of the remarks in this work on the impropriety of setting a boy to the Egyptian task of theme-making, the equally absurd one of verse-making, and the totally useless one of perpetual recitation. A strange notion attends an initiation into Latin and Greek, that they must be taught by an immense degree of application and repeated floggings; and the teachers are conceived to be too great personages to adopt the methods of the teachers of modern languages. Hence, out of two hundred boys instructed in a great school, not ten can convey their thoughts, after *seven* years' hard study, in an intelligible manner, in either of these tongues: while, out of the same number who learn French in our common academies, there are scarcely twenty who could not, at the end of *two* years, enter into conversation with a Frenchman, or read a French author with tolerable fluency. The futility of verse-making is well explained by this writer; and we wish it to be read by those parents who are fond of exposing the juvenile compositions of their children. Our author is a little too diffuse on merchants' accompts, of which only a general idea should be given in schools, since the particular mode will be best taught in the compting-house, and the time wasted on this part might be better employed in perfecting the boy in arithmetic, and instructing him in algebra.

On the whole, we cannot dismiss this work without expressing our approbation of its plan, and in general of its execution. The author deserves well both of parents and schoolmasters.

---

ART. X.—*Asthenology; or, the Art of preserving feeble Life; and of supporting the Constitution under the Influence of incurable Diseases. By Christian Augustus Struve, M.D. Translated from the German by William Johnston.* 8*vo.* 8*s. Boards.* Murray *and* Highley. 1801.

TO extend and expand, by the assistance of numerous subdivisions, and an undue minuteness of distinction, a slight, if not a trifling subject, is characteristic of the genius of our neighbours, and the collateral descendents of our common ances-

tors. Their folios of logic and of medicine have been the ridicule of the wits of every nation; and, even in the modern forms, their octavos are beyond measure bulky. 'The subject,' Dr. Struve observes, 'may not be improper either in a moral or a physical view, especially as the *evil* has often made such a progress, that nothing can be done to prevent *it* from acquiring a superiority, and to prolong, at least for a certain period, that life which we are not able to maintain.' This sentence is somewhat enigmatical. Is the author speaking of *scrofula* (the king's evil) or of *death?* We suppose the latter; and, if this word be supplied in its stead, the enigma indeed vanishes, but the whole is still absurd or unintelligible. Had the work been kept back ten or twenty years, it would, the author adds, have obtained a quite different form. We think so too. It might have shrunk into a nut-shell, and some of the idle fancies which now disgrace it would have vanished completely.

Every one, it is remarked in the introduction, must range himself on the side of one party. 'It is distressing,' adds Mr. Struve, 'to read the insulting attacks made against men of the greatest merit, where persons and things are confounded: to praise or condemn Brown is equally dangerous.' It is more dangerous however to fire at random, for the shot may strike a friend. We may contend, nevertheless, that the present firing cannot have been aimed against the English journalists. *We* profess ourselves of no party; and if we have opposed the absurdities of Brown, it has been as advocates of nature, or rather of suffering nature; for we have contended, and still contend, that he had no knowledge of diseases. We have opposed him, too, on other grounds, as affording a refuge for the indolent and ignorant, by bringing medicine within the compass of his rules (few and inadequate), and fixing the bounds, on either side of which the methods of cure must, with little exception, be opposite. Yet we have admitted, that, in one point, he has elucidated the animal œconomy, viz. in observing the state of excitability, either as accumulated or exhausted. It is a law of the greatest importance and of the most extensive application, and, so far as we know, is wholly his own. It will certainly cover a multitude of sins; and we fear that a multitude of breaches, of at least one commandment, may result from his other doctrines.

We have said, that, had this work been inedited for twenty years, it might have truly assumed a new appearance. We will explain ourselves. The author's object is 'the art of preserving feeble life,' and, in his progress, he examines all the varied forms and causes of debility. His real design required only the consideration of two points—the symptoms which indicate impending death, either in acute disease, or from chronic weakness; for the means adapted to each might then have been shortly discussed. The principle of Brown, just noticed, would, in

such an inquiry, be most extensively useful; for it would apply minutely to every step, and particularly to the different states of accumulated and exhausted excitability. We see the former in many acute diseases in the labouring pulse, indicative of internal inflammation and occasional obstruction in the progress of fever. Thus Dr. Rush and Dr. Jackson have clearly pointed out the sinking pulse from visceral obstructions, which are relieved by bleeding. We have often seen the pulse, in similar situations, ascend from the action of a brisk purgative. The other situation branches into two very distinct states; viz. the feeble life, from excitability rapidly exhausted, as in the last stages of fevers, or more slowly spent, from the gradual progress of chronic diseases. Each of these states requires very different and opposite management.

Dr. Struve begins with some inquiries into the vital principle. His opinion we have already noticed in another work, and have considered it as of a suspicious tendency. We shall transcribe it, as given in this volume at somewhat greater extent.

'The vital principle manifests itself differently, according to the organisation in which it acts. This is the case not only in the different organisations of animal and vegetable nature, but also in regard to the difference of the organisation of bodies of the same genus. Hence the different phænomena of the manifestation of the vital principle in some men; because each man has his own individual organisation. This may serve to explain the difference of constitution and temperament.

'In the last place, the manifestations of the vital principle are varied by changes made in the organisation by disease; and even by the changes which the organisation experiences from external and internal stimulants, and by complete conformation at different periods of life.' P. 20.

On this subject we cannot engage at length. It will be obvious that, in the present consideration, the author steers clear of the difficulties which may be urged against the materialists and their opponents. Life is not a mere modification of matter; and, on the other hand, the soul is not that peculiar inseparable principle which when added gives, and when taken away destroys, the life of the individual. Yet this system wholly annihilates the responsibility of the being, and militates most powerfully against the doctrine of future rewards and punishments. According to the more general theory of religious philosophers,—and no true philosopher can be irreligious,—though the body decay and its particles be scattered, yet the soul is single and unchanged, accountable for the works of the body which it animated. Even the more religious materialists contend that the scattered particles of the body may be collected by divine power, and, by possessing the consciousness of its identity, become accountable for the deeds 'done in its days of nature.'

In the system of our author, future responsibility, however, as we have already observed, appears wholly abolished. If the principle of life be that *ignis fatuus*, that wandering light for which he contends, it can never be appropriated to any definite body in a future period. The whole then, by any enlightened inquirer, will be rejected; nor shall we ever suffer it to assume an English dress without our warmest reprobation.

After treating of the vital principle, our author proceeds to consider organisation, the powers which animate the organised body, and 'animated organisation.' He appears to follow the absurdities of Brown, though not in the truly ridiculous form which was supported lately by Dr. Rush, and which has been already the subject of our animadversion; viz. that life is a forced state, depending on the action of external and internal stimuli alone; but his doctrines admit of little other interpretation. He next proceeds to the asthenic state of life, and to organisation, as a condition of it. From this last section we shall transcribe our author's definition of life, which, by changing only a very few words, would be equally descriptive of a time-piece. Yet this is science in its present improved state! this the production of our boasted æra of illumination!

'Life is not a state of rest, but of incessant operation. The most perfect *perpetuum mobile*, a continual circulation of action and being, a compound of working powers maintained by one principle for one end. Every thing bodily in man is subjected to changes and alternations; every thing on which the vital principle exercises its action is in a continual alternation of increase and decrease, of loss and reparation, of growing old, renovation and restoration. Scarcely have a few years elapsed when our substance, in regard to the bodily part, is entirely renewed, and, as it were, again created from the surrounding elements. The vital principle animalises every thing subject to the influence of its action, and converts it into organised parts of our bodies. The nourishment which we use is treated in this manner by the vital chemical processes, and the same is the case with all the substances of the surrounding world which have the power of acting on our bodies. Here we can observe the peculiarity of the vital principle, which establishes a difference between it and all other powers.

'Life consists in incessant action and re-action, excitement, and re-excitement. The more uninterrupted and equal the relation between action and re-action, the freer is the operation of the vital principle in man, and the greater the sum of vitality and health. In such a state man lives the most perfect life.' P. 77.

The symptoms and phænomena of feeble life, its remote causes, particularly those which result from modern manners, asthenic diseases, and the relation of asthenia to the duration of life, are next considered at length. In this inquiry, the first step has never been properly fixed; for, after all the minute distinc-

tions of Dr. Brown and his followers, we contend that they have never ascertained the different states of sthenia and asthenia, *as applied to practice.* They have never pointed out the distinguishing symptoms of each in successive periods of different diseases, though they have amply explained what *may* take place from investigations 'in the high road.'

The astheno-comic doctrines, or the means of preserving feeble life, follow in the second part; and we have here to lament the error just mentioned. We are taught to restore deficient, to repress immoderate activity, without an enumeration of the discriminating symptoms of either state. The following remarks are strictly just; but it is still to be regretted that they are not succeeded by an accurate diagnosis of each condition. This, it may be said, is the office of the practical physician under each disease; but it will require little sagacity then to determine that the present rules are scarcely more to the purpose than *Quî fit, Mæcenas?* they contain, however, more just discrimination than has yet occurred in the work, though lost for want of application.

'If properly applied, the stimulating strengthening method, even in the most desperate cases, may effect a cure; and though perfect restoration of the health is not possible, it is at least the supporter of feeble life, as it prevents the total exhaustion of the vital principle, and preserves the vital susceptibility of the organs as long as they are capable of irritation. Brown, therefore, is entitled to no small merit for giving to this method greater extent. But that it may not be prejudicial, actual vital debility must exist. I must here, however, remark that our first physicians, such as a Stoll, a Vogel, a Frank, and a Hufeland, were acquainted with the application of this method long before the Scot's system was introduced into Germany. For the truth of this I shall refer to what the above authors have written on the treatment of malignant nervous fevers, where they teach us, at the same time, the necessary rules of precaution. The stimulating strengthening method of cure is certainly capable of farther extension; and this is necessary in the present age of debility. But it requires an acute practical eye to discover the existence of actual debility; to distinguish direct from indirect, and real from apparent feebleness; which, as is well known, is not the province of every one. Equally great talents are required to apply this method properly; to determine the degree of excitement; and, in general, to know whether the strengthening stimulating method can be employed in its whole extent, and to compare the indications and counter-indications with each other.

'The prejudicial consequences of a misapplication of this method, which we so frequently observe in the present period, by an unconditional adoption of the Brunonian principles, ought to deter every physician, not possessed of these talents, from employing it. He ought to know that he takes in his hands a destructive poison, which he must either convert by his art into a beneficial panacea, or leave

untouched. To employ stimulating and strengthening means where there is an inflammatory state from sthenia, where the vital principle is in full activity, or rather immoderately active; in bilious fevers, gastric impurities, &c.; and for patients sthenic by the nature of their constitution and previous mode of life, is pouring oil into the fire; the inflammation will be increased, and soon terminate in gangrene; congestions will be accumulated, and a violent determination of the blood towards the heart and the brain will take place: hence, bursting of the vessels, hæmorrhages, apoplexy, insanity, constriction of the breast, suffocation. Besides, the too great activity of the vital principle will be increased to excess; and by this immoderate exaltation of irritability, the power of action will be weakened in the same degree; all proportion between action and re-action will be destroyed. The vital functions will be carried on therefore in an irregular manner, and, on account of their deficient activity, there will arise obstructions in the vessels, and relaxation of the solids, as the vital power does not exercise sufficient action. Watery particles are accumulated, and secretion and excretion become irregular and deranged. Hence there arise so often after heating medicines, and after fever has been checked by the use of spirituous liquors, dropsy and ulcers. Great mischief is occasioned by this method in spasms, produced by too great activity of the vital principle: a distinction must, however, be made between this kind of spasms and those arising from a deficiency of the vital principle in real asthenia. The spasms are thereby increased in an extreme degree, and, in particular, the determination of the blood towards the head is promoted, so that epileptic affections are combined with idiotism, or degenerate into apoplexy. The pernicious consequences of flux, checked by heating medicines, has beeen fully proved by Zimmermann.

'The faculty of being acted upon by stimulants is at length totally destroyed, if the method of exciting it anew, by the repeated application of stimulants, be too long continued; and at last it will be impossible to bring it into activity by any means whatever. In this manner death will ensue. Hence it happens that medicines which are unnecessarily administered, without measure, in the sound state, produce no effect in disease.' P. 247.

Dr. Struve, in this second part, points out the general methods of maintaining feeble life, by an attention either to the vital principle or the organisation; and with respect to the former, immoderate activity must be lessened, and too diminutive activity increased. The distinction between direct and indirect debility, the corner-stone of all rational practice, is thus loosely explained. We do not want, in these circumstances, to know what are the diseases arising from indirect debility, but the symptoms which point out accumulated excitability.

'It is of importance, in that asthenia which arises from impeded or insufficient activity of the vital principle, to distinguish the *direct* from the *indirect* state.

'In the first case, the activity is so confined, that the direct application of stimulating and strengthening means is necessary to ren-

der it again free, as in nervous fevers: this is the higher degree of asthenia, in which not only irritability, but also the power of action, is weakened.

'In the other case, the grounds of feeble vital activity lie more in *objective impediments*, which may be the case where there is complete vital strength. It is indirect feebleness, from an excess of excitement. To this head belong all those diseases which Brown deduces from indirect debility. In this case, the object of cure must be to remove the impediments.

'With proper caution and observation of the existing case, the so called debilitating means may, therefore, be employed; but the physician must always keep in mind that he is treating an asthenic state, and consequently that the strengthening and stimulating method, properly so called, must be aptly combined with these so called debilitating means. There is here no contradiction, as might appear; and I purposely employ the term *so called* debilitating means, because, though these means, under other circumstances, debilitate, they act here as real corroborants. We may here call to mind the use of bleeding and emetics in diseases of indirect debility.

'Locally employed, such so called debilitating means may be of use, especially when impeded vital activity relates only to individual organs; that is, when such organs suffer most. Hence the good effect of emetics in such a state of the stomach.

'The local application of these so called debilitating means, confined merely to individual parts of the body, may be more readily used in certain cases, as the whole system will thereby suffer less.' P. 232.

The second chapter of this part is on the means of strengthening too weak irritability by stimulants and corroborants. The third is on the means of diminishing immoderate irritability. This does not allude to the convulsive diseases, but to fevers; and we find an extreme timidity respecting the use of evacuations in their earlier stages. The following passage we copy as a specimen of unreasonable and improper caution. The subject has lately been so much under our consideration, that we need not add a comment.

'In this first period of disease, the main object is to set free the oppressed activity of the vital principle, and to effect again an uniform distribution of it, which can be done only by stimulating, strengthening things. In this precious moment it is yet possible to avert the mortal disease; but unfortunately it is only a moment, and a little farther this method of cure, in other respects so certain, will be too late.

'On the other hand, in the first period, debilitating means, that is, evacuants, bleeding, &c. must be prejudicial, must promote and increase the disease, open the passages for infection, as they entirely depress the still remaining activity of the vital principle, and increase unnatural irritability by exhausting the power of action, and injuring the organisation itself. Hence it appears what mischief must arise from the unconditional use of emetics and bleeding, so much employed

by the empirics. The vital activity, necessary for removing the disease, is weakened; the organic parts are so far injured, that they are deprived of a great part of their susceptibility for the vital principle, and their substance even is mechanically deranged, if, as usual, these means are employed in strong doses, which will then make them act as poisons. These, however, are cases where the activity of the vital principle is weakened by the influence of certain powers, which immediately attack that principle, and of which the consequence is lesion of the organisation; for example, mental stimulants, violent fear, infectious poison. Lesion of the organisation manifests itself either sooner or later; and this difference must be attended to in the application of the stimulants.' P. 291.

The fourth chapter is on the means of maintaining feeble life: these are heat, applied by external or internal instrumentality. The fifth chapter is on the regimen of the debilitated; the sixth on maintaining feeble life in the different asthenic states; and the seventh on prolonging it in what are called incurable diseases. This last chapter is divided into two parts; viz. on the means of retarding the consumption of the vital principle, and of mitigating the most urgent affections.

On these points we have little to remark. The whole is detailed very vaguely, and might admit of numerous exceptions and observations, did the totality of the work merit such minute attention. We may add, as an instance, that the author gravely cautions us against the injury which mineral waters *abounding with oxygen* might inflict, without being aware that no such impregnation is ever found, and tells us that water acts as a combination of hydrogen and oxygen, without adverting to the little probability there is of its decomposition.

This is a subject, however, that we wish to see discussed by a truly scientific philosopher and a practical physician, in which the states of accumulated irritability should be carefully detailed. We are inclined to believe, that these are more numerous than authors have supposed, and that it sometimes takes place, in a morbid degree, where it has been little suspected: we mean in those whose lives have been peculiarly regular, and perhaps indolent: their disorders are often chronic and fatal. And were this view to be carefully attended to, it would, we think, suggest a mode of practice, in many respects different, and sometimes more successful. We remember to have seen an able practitioner (who, however, never reasoned in this way) give with success large quantities of wine in hæmoptysis, to a patient past the meridian of life, who had 'rusted on his hinges,' according to his own expression; and the same idea we have occasionally followed with equal success in similar situations. This is not, however, our present business: it was introduced chiefly to point out what we think is a state of body too little regarded, and the line in which the doctrine of asthenology might be profitably pursued.

Dr. Struve, in this attempt, has not added any thing valuable to the stock of science.

---

ART. XI.—*A Tour through Part of North Wales, in the Year 1798, and at other Times; principally undertaken with a View to Botanical Researches in that Alpine Country: interspersed with Observations on its Scenery, Agriculture, Manufactures, Customs, History, and Antiquities. By the Rev. J. Evans, B. A. &c.* 8*vo.* 8*s. Boards.* White.

IN a country so wild and romantic we wander repeatedly without fatigue or satiety, and accompany the querulous or the cheerful traveler with almost equal pleasure; as we survey the rugged wilds of Salvator Rosa, or the brilliant dawn of Claude, in different circumstances, with equal satisfaction. We follow Mr. Evans, however, with a variation of feelings. We are pleased with his philanthropy, with his philosophical views, with the choice of his scenery, and his appropriate descriptions: but we think his sensibility and refinement occasionally border on affectation. He is too much inclined to censure his predecessors; and we are unwilling that any one should hint a 'fault or hesitate dislike' of Mr. Pennant, except ourselves. We find also too frequent recurrence of the 'struggles for liberty' on the side of Wales, and of 'oppression' on that of England. Who will say that Cambria has been less free under the English government than under her native princes? The feudal system was indeed unknown among Celtic tribes; but, at a time when liberty was scarcely defined, and property imperfectly secured, the feudal tenures were often preferable to the allodial.

Mr. Evans traveled through Wales to study her native productions, with a view of collecting the Flora of the principality, an object of no little consequence. Perhaps we are querulous or fastidious; yet to us his descriptions appear sometimes broken, by the discussion of a common plant and its obvious uses; and a train of interesting ideas are interrupted by an account of the vegetables which decorate the spot adorned by victory, or endeared by tenderer scenes and reflexions. Such are our feelings: his readers may however be more favourably disposed. We have often hinted at the disgust we have been conscious of at reading the travels of some of the Linnæan school, and particularly of Hasselquist, who overlooks the pyramid, and the ideas that such a stupendous mass must excite, to notice the ant that crawls at their base. Let us add, however, that this disgust is more obviously felt in the former than in the latter part of the present work; and, should the reader at first experience it, we can assure him that the spirit which, on the whole, animates

the performance will soon efface the recollection, or that, at least, it will soon lose all its force.

Mr. Evans entered Wales from Shrewsbury, crossed the Severn near Buttington, and, wandering to the south and the west, visited Montgomery and Newtown before he advanced to Plynlimmon, the mountainous region whence flow the Severn and the Wye, with various other rivers of inferior note, which fall into the sea towards every point except the north. In fact, as usual, the highest hills are on the western coast; and these extend, with little alternation of valley, through Merioneth, Caernarvon, and the south-western part of Denbigh shires: and travelers, as well as poets, are acquainted with Plynlimmon, Cader Idris, Tanybwlch, Snowdon, Lamberis, and Penmainmawr, which range in succession along the coast in this direction. This is also the direction of Mr. Evans's tour; and, when he arrives at Conway, he proceeds along its western bank till he crosses it at Llanroost, whence he follows the south-western road, and again enters Shropshire, across the Ceriog, near its north-western angle, where it is contiguous to Denbigh or Flintshire.

Our readers may judge from this route what entertainment they may expect from the Tour before us. We can assure them that it will not be inconsiderable. Though scarcely a mountain rears its head unsung, our traveler's picturesque description will still please. We need not follow him closely, but shall select some specimens of different kinds. Notwithstanding the little faults just mentioned, the work possesses much merit; and we should remark, that there are some antiquarian and historical digressions, which are naturally introduced, and not pursued too far. Two of the longest of these we found very interesting and instructive; viz. the life of the celebrated Glendower, which fills up an obscure portion of English history; and a historical account of the *lords marchers*, an institution which, on this side of the kingdom, differed from that on the north. We shall first select our author's description of the view from Cader Idris.

'The waters of the lake cover an extent of fifty acres, abounding with trout and other fish; and a loud and distinct echo twice repeats the whispers of the speaker. Amidst the clefts and fissures of the rocks foxes find a safe retreat; and the favourite animal of the country, in its proper state of nature, leaps from craig to craig, browsing the mountain shrub, or alpine grass, in wild security.

'The road from this shelf is still more perpendicular; the loose columnar stones, lying about in all directions, assume in many places so regular an appearance, that they might be taken for druidical remains; some of them stand erect, like Maen hirion, and one is dignified with the title of *Llêch Idris*. Nearer the summit numerous masses of irregular figures present themselves, and the disordered state of the strata becomes more obvious. This mountain is *Cader Idris*, properly so called. Having gained this ascent, a small plain

forms the base to the two eminences, or rocky heads, of nearly equal height, which constitute the bifurcated summit of Idris, called *Tyrran Mawr* and *Pen y Gader*. The view from the latter is wonderfully grand; the mountains we had looked up to with astonishment now sunk into inconsiderable hills, while the lesser elevations appeared to vanish in the extensive plains. Lakes, rivers, towns, villages, castles, steeples, woods, and downs, intermixed with the numerous inclosures, and sheep, cattle, and men, in diminished perspective, formed a pleasing and varied map. Over these the eye ranged to the Wrekin, rising solitary on the plain of Salop, skirted by the winding Severn, the lake of Bala, with the Cader's rival, *Arran Ben Llyn*, the Ferwyn, and the Breddin Chains. To the south, the bay of Swansea, and the Channel, peep through the openings of the mountains of Brecon. The vale of Towyn, the fine curve of the bay of Cardigan, with the immense expanse of the ocean, dashing its foaming waves over the breakers, and against the rocky shores of Merioneth, add to the beauty of the scene; which is closed, at a vast distance, by the heights of Snowdon, and, dimly in the western horizon, appears, like a faint cloud, the coast of Ireland.

'The world, in elevations like these, seems beneath the traveler; and it is impossible not to feel, in such impressive scenes of grandeur, a principle of religion. The immensity of the ocean corresponding with the majestic height of the mountain, contrasted with the habitations and other laborious works of man, so diminutive in the scale, could not fail to excite ideas of wonder and delight. The sublime has a moral tendency, it elevates the soul by depressing it; it lifts it above every mean and groveling consideration. Here the mind is arrested with awe!—All points to Him "who fixed the mountains on their base, established the earth on its immovable pillars, and holds the immeasurable ocean in the hollow of his hand." Evident marks of almighty power obtrude themselves on our observation, at every step, not only in the formation, but in the apparent changes that have taken place amid these stupendous scenes. What is vulgarly called great appears little, and what we were accustomed to pronounce important, comparatively trifling. We might have been tempted to have indulged a degree of pride, at finding ourselves so superior, and the world so far beneath us, had not the rising thought been checked by the insignificant figure those edifices made, which we had been used to consider as the wonderful efforts of human art and human power. We blushed at our little imaginary self-exaltations, and wondered how we could ever consider ourselves as beings of so much consequence. Surrounded by objects of such superior magnitude, the recollection removed us to our proper place in the scale of being, and, feeling a portion of self-abasement, which may be useful in less elevated scenes, we prepared to descend the mountain,' P. 92.

The reflexions in this passage are not introduced with so much apparent affectation as in some others; but a part of our author's vegetable physiology in the passage that precedes this which we have transcribed, and in some others, appears to be erroneous. Mr. Evans seems equally wrong in supposing the

*conferva vagabunda*, and the *hedysarum gyrans*, vegetables with a close approximation to animals. *Their* motions are the consequence of a peculiar structure, and we may as well conclude a steam-engine to be a vegetable. The description of the Alpine storm on the summit of Moel Wyn yr Hydd is sublimely terrific.

'The morning was lowering, and, as we gained the different ascents, the peak of Snowdon, Moel y Wyddfa, capt with clouds, became invisible. The darkness began to gather round, as we proceeded; and we perceived driving clouds passing rapidly beneath our feet, round some of the hills we had just ascended. The sheep were filing down the declivities for shelter, as though apprehensive of danger.

'From these appearances our guide prognosticated an approaching storm: we halted and deliberated what was best to be done: but being rather more than half way towards Bedd Kelert, deliberation only served to remind us of our unpleasant situation. To retread our steps would have been attended with equal inconvenience as proceeding. The country afforded no shelter; no vestige of a hut; nor was it to be expected in a country devoid of vegetation.

'The darkness momentarily increased, the misty clouds left their towering heights, and, gaining strength, by approximating towards the heavier ones beneath, soon became formidable from coalition. The winds became clamorous from the west and north; and, meeting with currents from the mountain vistas, soon blew an hurricane. All foreboded a dismal issue. The guide forgot his usual gaiety and loquacity, and began to shake and mutter a few inarticulate sounds. Despairing of making our escape, we relaxed in our exertions, and became less quick and firm in our steps: the very beasts shook their heads and snorted, as though sensible of the perilous situation.

'A general torpor at length seised the whole party; and visibly panic-struck, we patiently waited the assailing elements, like mariners who, after every effort to save the vessel proves abortive, give up their toil in despair, and patiently look for the coming destruction.

'A general gloom, like that of a total eclipse, pervaded the whole atmosphere: the diversified mountain scenery we had before admired had entirely vanished. Heaven and earth seemed blended together: the crumbling strata and shivering rock beneath our feet afforded us the only vestiges of the latter, while, in the former, cloud dashed against cloud in angry conflict. To this war of elements succeeded the fiercest torrents of rain that the imagination can conceive: to say *it poured* would be to trifle with language; no words are adequate to a description of the storm. To those who have seen a water-spout at sea, the conception may be easy; but to those who have not, we can only say, that we appeared in the situation of persons placed under one of those mountain cataracts before described, with its waters rushing down upon our heads. To those who never have visited alpine countries, no adequate description can be given; and, to those who are familiar with them, this colouring will appear extremely faint.

'Impelled by imperious necessity to adopt every method for self-preservation, after being frequently beaten down, we had recourse to crossing arms and joining shoulders, closing like wrestlers for support. This, from the violence of the wind, at length failed; and, had it not been from a circumstance, otherwise too trifling to mention, it is probable we should have been materially injured, had we escaped with life. A boy, about fifteen, had followed us several miles, to open the gates in the walls that separate the different lordships, whom we had just before dismissed with a small gratuity. To our surprise he was not gone; but, setting up a plaintive cry, he ran towards the south, and instinct induced us to follow. We were not able to keep pace with him, but found him safe lodged behind a vast rock, which raised its head above the other fragments. On a shelf of this, to the leeward, by an habit he had probably learnt of the sheep, he lay rolled up like a sleeping tortoise. Behind the covert of the same rock we obtained shelter, till the violence of the storm was past. In about an hour we were able to proceed through what, in England, would be called *heavy rain*.' P. 145.

We shall select one other passage only of a very different kind. Our author speaks of the northern shore, nearly opposite the Isle of Man.

'The ravens and falcons take their stations here from its vicinity to the island opposite, called Puffins' Island, from the great quantity of puffins that frequent it during the summer season. The puffin, or coulterneb, *alea arctica* of Linn. is the most extraordinary bird that frequents the coasts of Britain: its body is not larger than a pigeon's, but its bill is of an uncommon size and shape; it is flat, with the edge upwards, and said to resemble the coulter of a plough: its legs are placed so far back, that it moves awkwardly; and with great difficulty gets upon the wing. During the winter months, these birds frequent the northern parts of Europe; about May they begin to arrive on our coasts; a few days after their arrival they prepare for breeding, by burrowing in the ground, in a winding direction, for the depth of eight or ten feet; and, if they happen to get under a large stone, they consider themselves still more secure: in this fortified retreat the female lays one egg, relying upon its courage and strength of bill, with which it bites terribly, to ward off the attempts of the hostile foe. After the young are excluded the shell, the fierceness of the parent is incredible; no bird nor beast will venture to attack them: sometimes the sea-raven, Jacobson informs us, will dare to be so rash, but generally he forfeits his life for his temerity: the meeting affords a most singular combat; as the raven approaches to put his talons upon the young puffin, the parent catches him under the throat with her beak, and darts her claws into his breast; the raven, wounded, screams most dismally for quarter, but the offended bird is deaf to the intreaty, and makes directly for her proper element, the ocean, where the raven is quickly drowned, and the puffin returns in triumph to the nest: yet, it sometimes happens, that the invader is the victor, and the raven destroys both the parent and her young; this, however, seems no more than retributive justice. The puffin

is, in similar instances, an aggressor; and it is but just that the unprovoked invader should, in turn, be a sufferer from undeserved invasion: the puffin, frequently too proud or too idle to make a retreat for itself, when it finds one already made, without the least pretence but superior power, dispossesses the poor rabbit of its subterraneous habitation, and, to prevent further annoyance, destroys the inhabitants: in these unjustly-acquired seats the young puffins are found in great numbers; when arrived at full growth, they are generally fat, and esteemed a delicious *bonne bouche* by those fond of high eating; to others their flesh appears rank and fishy, from the nature of their food: the old ones go catching fish during the day; these, half digested in the stomach, are reduced to an oily matter, which is ejected from the old one's into the mouths of the young; it is during these excursions that the ravens are most successful in preying upon the young puffins. When wanted for the table, they are dug out of the burrows, or hunted by ferrets.

'The migration of the old birds takes place early in autumn, and about the latter end of August the whole tribe is seen assembling, to take leave of their summer residence: it sometimes happens, that those who had met with the loss of their first-laid eggs, owing to the delay occasioned by laying others, have their young in a backward state: but, if they are not fledged at the time of migration, they are left on land, to shift for themselves. At this period the harvest of the falcon commences: he keeps guard at the holes of the late hatched puffins, till pressed by hunger they are under the necessity of going abroad in quest of food, and then fall an easy prey to their wary enemy.' P. 267.

The last three or four letters convey a pleasing account of the customs, the language, and the superstitions, of the Welch, which we would willingly have enlarged on, had it contained any very interesting novelty. On the whole, Mr. Evans appears strictly pious; and his steady opposition to the prevailing and increasing infidelity in philosophy is highly meritorious.

We greatly regret, in this volume, the want of a map and an index; more especially of a table of contents.

---

ART. XII.—*A Journey from London to the Isle of Wight. By Thomas Pennant, Esq. 2 Vols. 4to. 3l. 3s. Boards. Harding. 1801.*

THESE volumes form a part of the author's Outlines, so often mentioned. They are, apparently, descriptions of two different tours, undertaken at distant periods, with somewhat different views; but by no means so dissimilar as to make it an incoherent or inconsistent work. The country in question is, however, so well known, and has been so frequently described, that we have not, on the whole, found the delineation very inter-

esting. The editor's eulogy on the author is beyond measure extravagant: we must bring it nearer to the level of reason and common sense.

'The interest which every reader must feel in the description and delineation of these portions of our isle will be greatly enhanced by the consideration that this is among the posthumous remains of that correct observer, and experienced investigator, whose glance penetrated through all the recesses of Nature—whose taste in embellishment and accuracy in description, subjected to the eye, and indelibly impressed on the mind of his reader, those images which were so happily conceived, and so interestingly blended, in his own. This work is among the last treasures drawn from that mine of learning and science which the hand of Providence has closed for ever—that mine by which our national treasures have been copiously augmented, and from which some of the most estimable ornaments of British literature have been derived.

'Considering these tours are part of a grand unfinished project, they present a model to that kindred genius who shall venture to perfect what Pennant left incomplete. Considered as a fragment of an illustrious author, they will not want value in the eyes of his countrymen, as they display that grand portion of the British territory, where force, wealth, and that commerce from which both are derived, have fixed their chief, and, it is hoped, immovable residence.' Vol. i. p. vii.

We have never found any of these extraordinary endowments in the present tourist; and though our commendations have been considered as constrained and inadequate, we suspect that we have given Mr. Pennant his full measure of praise. In history and antiquities he had the common acquisitions of a well educated mind, but could pretend to no peculiar acuteness of research, no uncommon depth of information. In natural history his knowledge was more extensive; but we would almost confine it to zoölogy. In botany, he refers to Haller, to the Flora Danica, to Gerard, and to nearly every work of credit, except Linnæus. In mineralogy, his descriptions are of the old school, with scarcely any notice of the modern improvers. The calm and correct polish of his style forbade the luxuriant warmth of picturesque description; and the direction of his studies never led him to minute contemplation, or the consideration of mechanical contrivances. Yet he possessed a strength of mind and extent of information which render his tours pleasing and instructive; nor should we have derogated from his merit, had it not been raised to an extravagant height by injudicious panegyric.—To return, however, to the work before us:

The first volume of the present tour extends from London to Dover, and comprehends a general description of the shores of the Thames, on the Kentish coast, and those of the Medway, so

far as Rochester. Mr. Pennant is, as usual, a pleasing companion; and we think most so, when least full on the subject of antiquities, and when he is less anxious to crowd his volume by copying from the contents of his library. He describes what he saw with great exactitude; but as the æra of one part of his tour was at the distance of more than twenty years from the present period, and of another more than fourteen, much might have been added, and something advantageously changed in the work before us; yet so slow have been the improvements on the banks of the first commercial river in the world, that the alterations and additions would bear no proportion to the increasing opulence and commerce of the capital, and its attending streams. Necessity has compelled our merchants to take more extensive views. The forests of masts which now crowd one comparatively confined spot, will, when more conveniently expanded, give to commerce greater animation and vigour, more security and dispatch; and the tourist, we trust, at no great distance of time, will be enabled to celebrate works of equal majesty and advantage.

In the journey from London to Dover there are few scenes where description can pretend to the boast of novelty—few spots which the happiest abilities can render peculiarly interesting. It is not easy to select a specimen: we shall however commence with Mr. Pennant's account of the gunpowder works at Purfleet.

'From Erith we crossed the river obliquely to Purfleet. Its great chalk hill rose before us, in this flat country, like an Alp. A considerable quantity is burnt into lime for sale. We landed at the tremendous national magazines of gunpowder, erected here about the year 1762. Before that time they were at Greenwich, which was thought to be too near our capital. They consist of five large parallel buildings, each above a hundred and sixty feet long, and fifty-two wide, five feet thick, arched beneath the slated roof; the arch is three feet in thickness, and the ridge of the roof covered with a coping of lead twenty-two inches broad. The building was reserved for the reception of the barrels of powder brought out of the magazines, in order to be tried in the proof room, to which there is a passage with a railed floor, covered on the bottom with water; so that should any grains drop, no accident could set them on fire. At present this building is disused, all the experiments being made in the open air, and in the musquetry or artillery, to the use of which it is destined. All these buildings are surrounded at a distance with a lofty wall. In the two outmost is kept the powder in small barrels, piled within wooden frames, from the bottom to the roof; and between the frames is a platform of planks, that the walkers may go in without fear of striking against any substance capable of emitting a spark. As a farther security, those who enter this dreadful place are furnished with goloshoes and a carter's frock. Nothing of iron is admitted, for fear of a fatal collision. The doors are of copper,

the wheels of the barrows are of brass. The four buildings usually contain thirty thousand barrels of 100lbs. weight: should an explosion take place, London, only fifteen miles distant, in a direct line, would probably suffer in a high degree. The dread of such an accident by lightning struck the Board of Ordnance so forcibly, that, in 1772, it consulted the Royal Society on the most effectual method of preventing it. A committee from the society was appointed, who determined on fixing conductors: such were set up with unusual precaution. These were on the principle advised by Dr. Benjamin Franklin; the very same philosopher, who, living under the protection of our mild government, was secretly playing the incendiary, and too successfully inflaming the minds of our fellow-subjects in America, till the great explosion happened, which for ever disunited us from our once happy colonists. On May 15th, 1777, the inefficacy of his pointed conductors was evinced. Lightning struck off several pieces of stone and brick from the coping of the Board House, which stands at a small distance from the magazines; neither the conductor on this house or any of the others acted; but Providence directed the stroke to that alone: the mischief was very trifling. Mr. B. Wilson had very ably dissented against the method proposed by Dr. Franklin; but the evil genius of the wily philosopher stood victorious; and our capital narrowly escaped subversion. At present, these important magazines are made as safe as human wisdom can contrive. The house in question is a handsome plain building, and is called the Board House, from the use made occasionally of it by the Board of Ordnance. It commands a fine view up and down the river, and the rich gentle range of hills in the county of Kent.' Vol. i. p. 42.

The insinuation, at the conclusion, must not pass unnoticed. Time has developed, in a great degree, the character of Franklin; and the invectives of Mr. Wedderburne (earl Rosslyn) do not, at present, appear too severe, though they may have been ill-timed, as they certainly proved in the event impolitic: but that he designed the destruction of the capital is an absurd imputation; and that, at this moment, blunt conductors are found of superior efficacy to pointed ones has not been proved. In this instance at least our author's intuitive glance has not penetrated the secret recesses of nature. The Kentish cherry, Mr. Pennant informs us, was brought from Flanders by Robert Harrys, fruiterer to Henry VIII.; and it is added, that to him we owe the 'temperate pipyn and the golden renate.' We have much reason to doubt the whole of this information,—particularly that apples were introduced from France; and the corruption of the orthography shows that their introduction was of an earlier date. From the catalogue of native fruits here added, we would abstract the strawberry, and add the small crab apple. Yet there are some reasons for thinking the small wood strawberry a native. The following account of a singular and but little known goddess deserves notice.

'From the village of Stone, seated on a height to the east of Dartford, is a vast view of the river, and of the extensive flats and marshes beyond Gravesend. From hence to that town the country is full of chalk-pits, and kilns smoking like so many altars to the *Dea Nehelennia*, patroness of the chalk-workers. The learned Keysler gives us several descriptions and sculptures of that goddess. Montfaucon has presented us with more. She is generally represented sitting, a dog by her, and in her lap and by her side a basket of fruits, expressive of her fecundating powers over the earth. Hercules is sometimes placed by her, but oftener Neptune: the one to express her strength, the other her interest in commerce: on one is likewise a rudder; on another stone is an inscription, implying that a certain merchant, a dealer in chalk exported out of our island, vowed an altar for the successful voyage his ship had performed. We have only one place in Britain where there is any suspicion of this goddess being alluded to, which is near Calcaria, in Yorkshire, the same with the modern Tadcaster, a place famous for its quarries of lime-stone, of a very fine kind, approximating to chalk. Therefore doctor Gale suspected that the ford, vulgarly called Helen's, ought to have been Nehelenn's, allusive to the commerce carried on in that neighbourhood, under the auspices of the goddess. That is not improbable; but the great place of export of chalk must have been on the banks of the Thames, from whence it might have been shipped with great ease to its staple at Zeland, in Holland; a discovery owing to numbers of altars devoted to that goddess, found on that coast lodged in the sand, which was laid bare by the violence of a tempest in 1646. This was the port in which the chalk was landed, and from which it was conveyed into the several parts of Germany. The Latin name of this article was Creta, called from the island of that name, where it abounded. The British word is Calch, which possibly gave name to Calcaria, latinised from the native word.' Vol. i. p. 55.

Every part of our author's descriptions, as well as those of other travelers, proves that the land has gained on the sea, chiefly by an alluvial operation. The acquisition has been in many places considerable, and numerous inlets of former ages are in consequence destroyed. This is strongly evinced by the strata found in boring to recover the well at the castle of Queenborough, and by a similar subsequent attempt at Sheerness (which might have been added with peculiar propriety by the editor) many years prior to this period (viz. 1787). Our author visited the Isle of Sheepey, to collect specimens of the various extraneous fossils with which its cliffs abound; and an account of them is here inserted; but they are described vaguely and indistinctly, with references only to the ancient authors. At least when this account was composed, the more modern ones were within his reach.—That the excellence of the French black and scarlet dyes arises from the waters of the Seine, is an idle fancy, and should, at this period of chemical knowledge, have been expunged, if correction were inadmissible. The de-

scription of the various species of *ludus Helmontii* found in these cliffs is perhaps the most valuable of any: but they are now well known.

The accounts of Margate, Ramsgate, Sandwich, Canterbury, Richborough, and Deal, are pleasing; but the state of most of them is now greatly changed; and had not such a supplement have been profanation in the eye of the editor,—for his preface displays a little too much of superstitious veneration,—a few notes would have been useful additions. In the present state, the information is communicated in an agreeable manner, and enlivened with appropriate historical anecdotes, which fortunately do not detain us too long. The melancholy episode of Mr. Boys is painfully impressive.

'In Mr. Boys's parlour I observed some small pictures of a ship in distress: he related to me the subject, and furnished me with the following melancholy episode:—In 1727 his father was second mate in the Saxborough galley, a fine ship of thirty-two guns, fitted out by the South-Sea Company, under the Assiento contract, and commanded by captain Kellaway. Her crew, including two passengers, consisted of thirty-nine. On June 25, in their way from Jamaica to England, the ship took fire, by the careless application of a candle to a puncheon of rum. The head was heard to burst off with the explosion of a cannon, and the flames seised her without hopes of remedy: the yawl was hoisted out, and twenty-two men and boys crowded into it; the long-boat remained on board on fire. In this situation, without clothes, provision, or compass, at the distance of a hundred and twenty leagues from the nearest land, they experienced all the miseries of cold, hunger, and thirst. It was proposed to fling into the sea the two boys who had occasioned the misfortune: this was over-ruled. It was then proposed to cast lots, and give all an equal chance of being saved, by lightening the boat, which lay deep in the water: this was opposed, and soon became unnecessary, by the death of five of the people, raving mad. Hunger grew now irresistible. Mr. Scrimsour, the surgeon, proposed the eating the bodies of the dead, and drinking their blood: he made the first essay, and turned aside his head and wept. They could only relish the hearts, of which they ate three. They cut the throats of their dead companions as soon as life was departed, and found themselves refreshed and invigorated by this unnatural beverage. By the 12th day the number was reduced to twelve; a raging sea added to their miseries: a dead duck, in a putrid state, came within their reach, and was eaten as the greatest delicacy. On July 7th despair seised them, and they lay down to die. By accident, Mr. Boys raised himself and saw land: on communicating the news to the survivors, they were instantly re-animated, and took to their oars. They perceived some shallops in with the land, and found themselves on the coasts of Newfoundland. They were taken on shore and treated with the utmost humanity by captain Le Cras, of Guernsey, admiral of the harbour. Mr. Boys, with true piety, kept the day of his deliverance ever after as a fast.—The rest of his life was blessed with

prosperity. He had begun his career in his majesty's service: accident flung him into that in which he experienced so great a calamity. He returned again into the royal navy, rose to the post of captain, and hoisted the broad pendant as commander in chief of his majesty's ships and vessels in the Thames, Medway, and Nore. At length he finished his honourable days lieutenant-governor of Greenwich hospital, in March 4th, 1774, aged 74. It is remarkable that two of his fellow-sufferers lived to a very great age. Mr. Scrimsour, the surgeon, attained that of eighty; and George Mould, a seaman, being brought into Greenwich hospital by the lieutenant-governor, died there at the age of about eighty-two.' Vol. i. p. 130.

The account of Canterbury is extensive, but by no means too prolix. At or very near Deal, Mr. Pennant thinks, Cæsar landed, and supports his idea by many circumstances worthy attention: no person indeed has ever disputed that the landing was effected in this neighbourhood: but every author is not agreed in confining it to this spot. The Godwin Sands, in our tourist's opinion, were submarine hills, chiefly noticed after the great inundation in Holland, in the year 1100, had drawn off a part of the water. A minute and particular account of the ancient and modern state of Dover, with a description of the famous cliff immortalised by Shakspeare, concludes this volume.

In the second volume the tour is continued in the direction nearly of the coast to Portsmouth and the Isle of Wight. Folkstone is the first object noticed. We shall transcribe a passage relating to the subsidence of the ground in this district; yet we cannot avoid premising that the Philosophical Transactions are, in more than one passage, referred to with a sneer, evidently because the experiments specified in them, and their objects, were beyond the knowledge of this inquirer into the recesses of nature.

'From the church I took a walk a little to the west, to see the subsidence of the earth, which has considerably attracted the attention of the curious. Before we reach Folkstone, the chalky strata take a turn towards the north-west, recede from the sea, and leave in their stead strata of brown marle, sand, and beds of a coarse stone, the marble containing pyritical bodies: in the stone are bedded fossile oysters. The water which falls on this tract percolates readily through the heterogeneous beds, and renders the lower unable to support the weight of those incumbent; the latter of course subside on the sinking of their bases. In some instances rocks have been raised at some distance from the subsiding cliff, so as to appear above the surface of the sea; but if the strata so raised happen to be composed of marle or sand, they are dispersed by the waves so expeditiously as never to remain long visible. In my walk along the edge of the cliff the subsided portion was very apparent, sunk numbers of feet below the surface of that path to which it belonged. This phænomenon has been well described and delineated in the

Philosophical Transactions, vol. lxxvi. p. 220. tab. iv. It happened in September 1785, but others have occurred in different years. Several instances are recorded in those annals of literature, in different parts of the kingdom; one in particular, which happened in this neighbourhood, is described in Lowthorp's Abridgement, vol. iv. p. 248. by the Rev. Mr. Sacchette. By the appearance of the ground in several other places, it is evident that similar accidents have happened in, perhaps, distant periods, when they have passed unnoticed and unrecorded.' Vol. ii. p. 5.

Sandgate fort and the town of Hythe, now at some distance from the sea, are successively visited. Some castles, formerly of importance, share also our author's attention. Romney Marsh we have noticed in our agricultural inquiries. It is the angle generated by the southern direction of the coast, whose extremity is at Dungeness, and its return to the north west, where it forms the old harbour of Rye. Its 'breadth' is said to be about twenty miles, and its 'depth' thirteen: *length* and *breadth* would have been more intelligible terms. The whole seems to have been gained from the sea, and is defended on the east by a wall at Dimchurch. The parish contains more than forty-six thousand acres.

Rye is the first town in Sussex; its old harbour daily diminishes in depth, and the communication with the inland parts is supplied by a canal. Much marshy ground in this neighbourhood might be very successfully drained, and add to the convenience of internal intercourse.

Mr. Pennant next proceeds to Winchelsea, Hastings, and Battle Abbey, each of which are described with his usual accuracy. Off Farleigh Head, in this neighbourhood, the tide from the German Ocean now meets that from the Atlantic. It was formerly farther to the east and the north. From the west of Winchelsea, the cliffs begin to lose their chalky nature, and become schistous; a change, however, which is not continued through the whole of the southern coast of England, although sand-stone and schist are the prevailing strata. The battle of Hastings decided the sovereignty of this island; and it is described with precision and conciseness. The abbey, raised by the Conqueror to expiate the slaughter of the day, is noticed at greater length. Near Battle is Ashburnham, which gives name to one of the few families of our present nobility who can trace their lineage beyond the conqueror.

Pevensey was famous for the landing of William: the fame of Eastbourne, Brighthelmstone, and Bognor, is founded on other circumstances; and, from the date of the present tour, we cannot expect an account of their modern improvements.

'In this neighbourhood the Romans had a settlement; for, on the road to Pevensey, near the sea, about a mile and a half from East-

Bourne, was discovered a tessellated pavement and bath, complete, and in fine preservation. All around are to be traced most extensive foundations of an ancient town which had been levelled to the ground, and, among the rubbish, quantities of ashes, the mark of its having been destroyed by fire. The foundation may to this hour be traced quite into the sea, which, since the destruction of the town, had made considerable invasions on the land. Dr. John Tabor of Lewes, an ingenious physician and antiquary, published, in 1717, an account of the place, which he reasonably supposes to have been the Anderida of the Romans. He imagines that this part of Britain was peopled by the Andes, a nation in Armorica, or Bretagne, and from whom the Anderida Sylva took its name. This city being placed at the very skirts, the Saxons called it *Andredes ceaster:* on their arrival it was inhabited by the Britons, after the retreat of the Romans. It was besieged in 490 by Ælla and Cissa, Saxon chieftains, who put every inhabitant to the sword, and entirely destroyed the place. It seems to have been a commercial town, seated on the harbour of Pevensey; and that it had been a *municipium*, a mixture of Romans and romanised Britons, to one or other of whom might have belonged the luxury of baths and the elegant pavements, which even now are covered with only four feet of earth.

'Camden supposed Anderida to have stood where Newenden, on the other side of the river Rother, is at present. This has been dissented to by a very able antiquary, but now not disputed, out of respect to that great man. It had all the advantage of situation which the other wanted; an extensive view to east and west, and seated, as Gildas says, upon the southern coast.' Vol. ii. p. 52.

The wells on the South Downs deserve also our notice. We shall transcribe our author's description, which we could have wished to have found more compact and comprehensive.

'The wells on the downs merit attention. I will first observe, that a rich though light mould covers the surface of the Sussex downs, varying in depth from a few inches to two or three feet. Under this is found a loose friable chalk, to about the depth of four, five, or six feet, sometimes more; and lastly, a solid mass of chalk, with regular strata of flints at unequal distances, is uniformly met with to the greatest depth hitherto penetrated. The flints are less frequent after descending one hundred feet.

'The wells are formed by means of a spade, mattock, and iron bar: they are dug perpendicularly down in a cylindrical form, being lined with a facing of brick, stone, or cut chalk, to the depth of ten feet, more or less; as the superficial strata must be prevented from crumbling into the well.—There are some few wells, on the Sussex downs, three hundred feet deep: I have often heard of deeper, but on further inquiry have always found the information to be false.—There are no wells, I believe, properly on the downs, less than sixty feet deep.

'The depth of water, like the depth of the wells, varies with the situation, and still more with the season. The water is, generally speaking, lowest about Michaelmas, (when few wells have more than

seven or eight feet of water in them, most not more than three or four.) About Candlemas the water is highest, but through greatest part of the winter the wells have commonly, in the high situations, eighty feet of water in them.

'I have the most satisfactory evidence, of a hundred and thirty-two feet of water having been found in a well of a hundred and sixty-two feet deep; and it most likely was not less in the other wells in that neighbourhood; as this well, which the proprietor had the curiosity to fathom, differs in nothing from those near it.

'I am further informed, by a person of undoubted veracity, that at Patcham (twenty-four miles west of Beachy-head) the well belonging to the house of his wife's father is above a hundred and thirty (most probably a hundred and fifty) feet deep, and frequently nearly destitute of water; yet at times it has risen high enough actually to overflow the mouth of the well, and flood the cellars of the house.

'It is certain many wells in dry seasons are useless, not having sufficient water to dip the bucket in; but this is a certain proof the well wants cleaning of the muddy chalk, which occupies perhaps three or four feet of the bottom, and can never be quite got out: in general the first stroke of the mattock or spade lets the water so fast into the well, that the man whose business it is to clean it gets out of its reach with difficulty.

'I believe there are none, situated really on the downs, less than sixty feet deep; those near the sea are in some places affected by the tides, but not by the salts of the sea. On the 8th instant (on which day happened the new moon, and consequently spring tide with high water at eleven o'clock,) I plumbed a well four hundred yards from the sea, and sixty feet deep, and found seven feet of water in it at twelve o'clock; at five I fathomed it again, and found the water decreased to five feet. The well is not in use, and without either bucket or rope at present belonging to it.

'The wells nearest the sea are those in the fishing towns along the coast, situated at the foot of, rather than on the downs; some of these are not two hundred yards from high-water-mark, and vary in depth from seventeen to forty feet. At East-Bourne the water, at what is called the sea-side houses, is bad, but does not seem any way affected by the sea; and it may be proper to mention, these wells, though not a bow's shot from the chalk cliffs, are dug through a stratum of black or rather lead-coloured clay.

'At Seaford (equally near the sea) the wells are for the most part affected by the tides, and rise and fall therewith. The water is reckoned bad, but I can obtain no satisfactory grounds for saying the salts of the sea ever penetrate the wells. The strata here are chiefly loose sand; and the wells, both here and at East-Bourne, are lined or faced with brick from the bottom to the mouth.' Vol. ii. p. 61.

The account of the fishery on the coast of Sussex, in the neighbourhood of Brighthelmstone, is entertaining and probably correct. But will mackarel bear the carriage thence to London? A doree, weighing fifteen pounds, must be truly singular.

Arundel castle and its church, Chichester and Portsmouth, are described at length, with great accuracy and fidelity, considering the period of the visit. The first has been greatly improved, and is rebuilding in the truly gloomy style of the correct Gothic. The capital of Sussex, and our chief station of shipping, are equally amended in appearance as well as in more essential qualities. From Portsmouth Mr. Pennant proceeds to the Isle of Wight, of which he introduces a description, but without much enthusiasm. Indeed, both on the score of fashion, as well as from the contrast of the level country round the metropolis, the beauties of its prospects have been greatly exaggerated; and the rugged desert appearance of the adjoining districts that skirt some of its most pleasing scenes, —occasionally, perhaps, a contrast to, but more often a drawback from, the beauty of the prospects,—has not been properly taken into the account. In the ancient history of the Isle of Wight, the fact of its having been the emporium of the commerce of Britain, and having derived its appellation from the ancient name of Vectis, we should have supposed would not have escaped the research of an antiquarian so industrious as our author.

The maps and plates with which these volumes are illustrated are of unequal merit. The former are grossly inaccurate, designed chiefly to please the eye from their clearness; without the notice of a single mountain or an inlet, except in a very few instances, where their position and direction are erroneous. The latter appear to have been furnished by the editor, often from a prior stock, though several of the drawings and engravings are apparently original and of great merit. Where, however, a plate has been found even remotely referable to the text, it has been inserted without hesitation. This, nevertheless, is scarcely an objection, for the engravings are in general pleasing and well executed.

# MONTHLY CATALOGUE.

## POLITICS.....POLITICAL ECONOMY.

ART. 13.—*Reflexions upon the evil Effects of an increasing Population; upon the present high Price of Provisions, particularly Corn; upon the Bounty Act; and upon the Propriety of general Inclosures: in which a Mode is suggested of relieving the present Necessities of the Poor, upon the Principles of Equity. To which is added, an Appendix, containing some Remarks upon the Subject of Tythes; further Observations upon Population; and Animadversions upon some late Publications on the present Scarcity. By Edward Gardner.* 8vo. 2s. 6d. No Publisher's Name. 1800.

An Essay upon Population, published about three years ago*, pointed out the increase of the human race as the necessary parent of evil. By this principle the author of the work before us seems to have been guided; and one great source of national calamity is still ascribed to it. We say it is *ascribed* to this cause, for of proofs we have none; and it is certain that provisions may be very cheap with an augmenting, and very dear with a decreasing population. If this island were so filled with inhabitants that the produce of its soil and seas could but just supply them with food, an increase in population must either take some from each person, or the lower classes must necessarily starve; but how opposite this is to the real state of the country, the slightest survey of its cultivation, the quantity of land in waste, and the number of horses maintained, must convince any inquirer. Population cannot be stationary, but by some artificial processes; and the uncultivated parts of the earth are the resources for those states in which there is a reason to complain of the surplus of its inhabitants. This island is as yet far from having reached that state: for, from the highest number allowed to its inhabitants, compared with the quantity of acres to be cultivated, the greater part to a considerably higher degree than at present, it is pretty evident that the population may be quadrupled, or quintupled, before any regulations take place for the annual emigration of superfluous mouths. There is one advantage, however, attending the idea started in this work. The apprehended laws to prevent emigration, now that peace has arrived, must be allowed to be injurious to the state; which, instead of preventing any person from leaving this happy island, should give a bounty to all who quit it, till population is reduced to the due bounds depending upon consumption and supply.

* See our XXVth Vol. New Arr. p. 56.

ART. 14.—*The Question, as to the Admission of Catholics to Parliament, considered, upon the Principles of existing Laws: with supplemental Observations on the Coronation-Oath. By a Barrister.* 8vo. Booker. 1801.

The statutes disabling Catholics from sitting in parliament are here investigated in a very candid and judicious manner; and more pains are taken with the subject than it seems to require. The later acts passed against the Catholics were the result evidently of prejudice and ill-humour. The causes which conspired to their formation have long ceased to operate; and, the power of the pope being now entirely a phantom, it seems idle to retain old distinctions on account of religion, and to refuse to the Catholic what is granted to the Deist, Methodist, Socinian, or any other class of dissenters from the established church. Besides, it is proved clearly, in the work before us, that the continuance of this disqualification of Catholics occasions an inconsistency in our statute-book; the very principle on which it is founded having been destroyed by modern acts of parliament. The summary view here offered of the existing statutes and oaths on this subject, as well as the reasoning exercised upon them, do great credit to the barrister before us; but we trust that his labours will be useful rather in a historical light, to show us the strange caprices of former times, than as necessary to the discussion of the subject at present; for we should think it would now be impossible to produce an argument against the admissibility of Catholics to seats in parliament which would not be easily refuted by every inquiring society in Great-Britain; and a few years more will probably see the whole of the empire unanimous in the same opinion.—The observations on the coronation-oath are drawn up with equal prudence: the different forms it has undergone are placed before the reader; and a just distinction is made between the executive and legislative office of the king. In the former, it is wholly coërcive upon him; but the various changes introduced by the legislature, at various periods of our history, in the established religion, are a convincing proof that this oath was never intended to bind the legislative body, or any branch of it, to any peculiar line of conduct with respect to the church: in such a case the omnipotence attributed to parliament would cease to exist; and its decrees would be confined by a power which might occasionally be as abhorrent to the principles of good government as the see of Rome has heretofore proved itself, when enjoying the plenitude of its dominion.

'The coronation oath, as we have already seen, is the solemn confirmation of a contract between the sovereign and his subjects, by which the rights of the latter are secured. Of these rights they cannot be deprived without their consent. If, however, the subjects shall relinquish any particular right to which they may be entitled, as far as it is relinquished, the sovereign is clearly released from his engagement; for there can exist no contract which, by the consent of the parties interested, may not be dissolved. Let this plain reasoning be applied to the question of restoring Catholics to the right of voting in parliament. Admitting, for the sake of argument, that the sovereign is pledged to his subjects, by the engagement con-

tracted at his coronation, to continue the exclusion of Catholics from parliament (although the supposition is absurd, since by the king alone they could not be admitted), yet if the three estates of the realm, in parliament assembled, shall present a bill to his majesty, praying that the disability to which Catholics are liable may be removed, surely his majesty may grant his royal sanction, since the very form of the bill expressly states that the measure is proposed with the advice and consent of his subjects.—I shall not insult the understanding of the reader by adding any further observations.' P. 78.

ART. 15.—*The Case of Conscience solved; or, Catholic Emancipation proved to be compatible with the Coronation Oath, in a Letter from a Casuist in the Country to his Friend in Town. Dedicated to the Right Hon. W. Wyndham, M.P. &c. with a Supplement in Answer to Considerations on the said Oath, by John Reeves, Esq.* 8vo. Faulder. 1801.

The rumours on the approaching emancipation of the Catholics have been attended with great advantages to our brethren of that persuasion, as well as to the country at large. To the former it has given the opportunity of vindicating themselves from the calumnies with which they have been too often aspersed, and of stifling and refuting the arguments alleged against their liberation; while, at the same time, the general sense of the empire is consulted, and, instead of that virulent outcry and outrageous spirit of rapine, plunder, and bigotry, which disgraced the metropolis about twenty years ago upon the same point, scarcely a hand is lifted up against the measure, and it is in general regarded on this side of the Irish channel with marks of the highest approbation. Even the opposition that is supposed likely to be made to it, is, as this writer observes, a subject of rational joy to every thinking mind; while, if the sovereign conceive himself compelled, by his coronation-oath, to resist the proposal, every one of his subjects, applauding his motives, will bow with reverence to his prerogative, and acquiesce with patience in his determination. The object of this work is (and we think the author has perfectly succeeded in the attempt) to show that the coronation-oath cannot stand in the way of the proposed emancipation; and, with this view, the author examines the nature of this oath, at various periods of our history, beginning with that of William the Conqueror. It is evident that, in all these æras, the sovereign was equally sworn to maintain the religion established; but this did not prevent a multitude of innovations during the reigns of our popish monarchs; it did not prevent the abolition of popery in the reign of Henry the Eighth, or its restoration in that of Mary; the abolition of popery, and the restoration of protestantism, by Elizabeth; the concession of Maryland to the Catholics by Charles the First; the repeal of the act *De Hæretico comburendo* by Charles the Second; the establishment of presbyterianism in Scotland by queen Anne; the establishment of popery in Quebec and Corsica, and various acts in favour of the Catholics, by our present sovereign, together with other circumstances affecting the toleration of quakers and dissenters. Hence, if precedents be consulted, there is nothing in the coronation-oath to prevent the total emancipation of the Catholics. But

the oath itself is of a nature that evidently admits it; it is a promissory oath, but an oath which allows of restrictions. For all promissory oaths are not of eternal obligation, since some are capable of being varied or entirely annulled. Such indeed is the nature of promissory oaths in general; but it is peculiar to them, that they may cease by abrogation, 'on the part of those persons who have the proper authority for this purpose over the parties themselves, or over the subject matter of the oath, or other engagement.' Now the coronation-oath owes its existence to parliament, the supreme legislative authority in this land, which can even 'alter the established religion of the land.' But that which can alter the whole can evidently alter a part: and, if the emancipation of the Catholics were really an alteration of the established religion, the legislature would evidently be competent to make it, and the king's oath could be no real obstacle to the measure. His oath is, to maintain that religion which is established, and as long as it is established by the legislature. This point is well maintained in the work before us; and, consequently, it is evident, that the king may, consistently with his coronation-oath, grant the emancipation of the Catholics, which does not, moreover, in the remotest degree, affect the established religion in its rites, its revenues, its discipline, or its faith.

The supplement to this very judicious, sensible, and moderate letter, enters into the examination of some objections made by Mr. Reeves to the proposed emancipation, who is properly corrected for his observation, that this was an unexpected measure; for his ignorance of the nature of oaths, and for his strange assumptions, that a parliament in the reign of William the Third could controul the operations of a parliament in the reign of George the Third, and that we were eternally to be subject to the creed of our ancestors. The state of the Catholics under the union is more fully expanded, and the folly of apprehending danger to Protestants is clearly pointed out. Indeed, 'as to the present situation of the church of Rome, once so powerful, we shall say no more of it now, after all the great events that we have lately witnessed on the continent, than what Dr. Johnson said of it twenty years ago; namely, that those who cry out Popery! Popery! in these times, are like those who would have cried out Fire! Fire! in the general deluge.'

ART. 16.—*Considerations on the Right of the Clergy of England to a Seat in Parliament. By a Member of Lincoln's Inn.* 8vo. 1s. 6d. Cadell *and* Davies. 1801.

A prodigious appearance of law-learning to little or no purpose. The seven first pages are consumed in proving what every body is acquainted with, that 'the right of representation must be taken to be a political, and not a natural right.' The records of antiquity are then investigated; and it should seem, that, prior to the existence of a house of commons, no mention is made of the inferior clergy in the great council of the realm: it appears, however, abundantly, that the superior clergy were constantly in this council; and, consequently, if precedent may decide the question, a proof of the right of the clergy to a seat in parliament is established. After the division of the council into two houses, no mention is made of

the inferior clergy having a right to a seat in the house of commons, nor does their name occur in the writs to sheriffs: but, unfortunately for our author, some how or other, the name of Clericus exists not unfrequently in the list of representatives; and there could be no more necessity for particularising the profession of the clergy, in the writ to the sheriff, than that of the bar. That the persons employed in the offices of religion never formed a part of the legislature of any country is a very unfortunate assumption of our author; and his proof from the Scriptures will scarcely pass current with any one the least versed in sacred history. When David called together the heads of families, or, as it is here denominated, his parliament, there was no necessity for mentioning priests: they were included in the general summons, which convened all the chiefs of Israel; and the head of the tribe of Levi could not be rejected, unless by a determination that Levi did not belong to Israel. And under the old constitution of France, the clergy were a constituent part of the legislature. The introduction of the form of ordination, and the arguing from it, we may observe, apply with greater force to the bishops than to the inferior clergy; and, if our author's reasoning be allowed, an entire bench must be taken from the house of lords. But the question is set at rest by the decision of the legislature, which may, if it choose, order also, that no one who has been called to the bar shall sit in either house. We should bow with equal respect to its conclusion in either case; but we see no incompatibility in the character of either with the performance of the duties of an upright legislator.

ART. 17.—*Uniting and monopolising Farms plainly proved disadvantageous to the Land-Owners, and highly prejudicial to the Public. To which are added several Observations, showing the Causes of the present high Prices of all Kinds of Provisions. By John Lewis, of East Bergholt.* 8vo. 2s. Longman *and* Rees.

Much is said or written on the subject of large farms: but we seldom meet with an appeal to fact. In Norfolk, the practice of holding large farms prevails more than in any other county; and since such practice has been established, its agriculture has been greatly improved, and its farmers, in extent of knowledge and good management, are at least equal to any in the island. It is strange also that so much should be urged on the size of a farm, when the size of an estate, or the joining, uniting, and monopolising of estates, are not considered of any importance. If it should ever be necessary for the legislature to interfere on the size of farms, it is to be presumed that they will settle previously the maximum of land to be possessed by a land-holder. An agrarian law is well known to be a wild project; but it is not less absurd to establish the size of a farm, and limit the capital to be employed by the farming interest, an interest now rising into consequence, and of more importance than either that of commerce or manufactures. Our author would divide a single farm of three hundred a-year into six, each paying a rental of fifty pounds; and he pretends that such farms would be better cultivated than those of larger extent. Our experience decidedly proves the contrary; and every landlord knows the difference, in point of trouble,

between collecting his rents from six poor farmers (for these six would be necessarily poor) and from one substantial tenant. Small farmers may do very well in some situations: but they are not calculated to improve the land: they cannot hazard an experiment, are crushed by a bad season, and, in the present state of taxation, are incapable of obtaining a livelihood. Both land-owners and the public are gainers by the opulence of modern farmers.

## RELIGION.

ART. 18.—*Industry, and a pious Submission, Charity, and a strict Economy, recommended and enforced, as the best Means of alleviating the present Distress: a Sermon, preached in the Parish-Church of St. Anne, Westminster, on Sunday the 14th Day of December* 1800, *being the Day on which his Majesty's Proclamation on the Scarcity of Grain was directed to be read. By Jos. Jefferson, A. M. &c.* 4to. 1s. Robson.

The topics mentioned in the title-page are inculcated with great earnestness, from scriptural motives. The preacher was not, perhaps, quite aware, that, in considering one part of the duty of the people in times of calamity, he gives rather too great encouragement to those who may be the means of increasing it. He says, that if the distress proceed from God, or 'by the agency (or, as some have suspected, by the avarice) of men, still our duty is the same.' The means of meeting it are—'an humble acquiescence on the part of the lower ranks—a diffusive charity on the part of the higher—a rigid economy in all.' That these are the proper means of bearing the calamities of dearths inflicted by Providence no one can deny; but it is too absurd to expect the same conduct when the evil is produced by an individual or a combination of individuals; nor does our constitution demand such a tame acquiescence in any human being to the insults of others. The lower ranks are not to riot; but they may petition; they may point out the evil, its causes, and its remedies; they may bring to the courts of public justice the delinquents; and, instead of a submissive acquiescence, they are bound to make known those avaricious men, if ever employed by them, who, either by destroying the fruits of the earth, or by illegally hoarding them up, promote the calamity here referred to.

ART. 19.—*A Sermon, preached in the Church of St. Peter, Dorchester, at the primary Visitation of Folliott, Lord Bishop of Bristol, on Saturday, June* 9, 1798. *By W. Bond, A. M. &c.* 4to. 1s. Rivingtons.

A general declamation on the progress of irreligion among the higher orders, intermixed with some good advice to the clergy. The style is somewhat desultory, and there is an evident want of that *unity* so essentially necessary to be observed upon every subject by all who aim at excellence in composition.

ART. 20.—*Some Animadversions on the Supposition of the Scriptures being the only principal amd perfect Rule to Salvation, &c. &c. By Richard Morris.* 12mo. 1s. Phillips.

A pharisaïcal attention to the letter of the Scriptures has distin-

guished some sects of Christians; and this probably led to the disparagement of them by another, whose sentiments this author adopts. He puts a number of shrewd questions on the nature of the Scriptures, which the believers in modern inspiration will do well to examine. But, though we agree with the writer and the editor of this work, that the Scriptures are not, in the sense in which they are often improperly termed, the *word* of God (for they are writings containing conjointly both the word of God and expressions of fallible and even impious men), yet we can allow no other judge in religious controversy: and the light within, for which the writer contends, appears to us little likely to introduce any great uniformity of opinion. It is not a question that will admit, in the present day, of much discussion: facts are sufficiently decisive: and the conduct of the Quakers towards Hannah Bernard, one of their most celebrated preachers, is a convincing proof of the inefficacy of their boasted inspiration. If the doctrine of immediate inspiration could be admitted, doubtless the words of a teacher of the present day, at a Quakers' meeting, must be preferred to a translation of the Scriptures, made confessedly by persons uninspired; yet our respect for the society of Quakers cannot induce us to sacrifice our Bibles to their extemporaneous effusions.

ART. 21.—*Animadversions upon a Pamphlet lately published, entitled 'Plain Thoughts, submitted to plain Understandings, &c.' By a Retailer of the Gospel.* 8vo. 1s. Williams.

An animated vindication of the right of dissent from the established church, and of methodism.—The spirit of persecution which is endeavouring to manifest itself in several acts against methodists cannot be too much nor too often reprobated; and the author of Plain Thoughts is treated in the manner he deserves. The true way of meeting the Methodists is by paying the same attention to the poor that is paid by themselves, and by condescending to make the truths of the Gospel intelligible to the meanest capacity. The preaching of the Gospel to the poor was one of the first characteristics of Christianity; and it will remain a very essential one to the end of the world.

ART. 22.—*A Sermon delivered in the Parish Church of Merton, in the County of Surrey, before the Corps of Merton Volunteer Infantry, on Sunday, October* 26, 1800. *By the Rev. James Olive, of Emmanuel College, Cambridge.* 8vo. 1s. Rivingtons.

This sermon is published at the request of the hearers, who may, of course, be imagined to have been impressed with a sentiment which may be recommended to the consideration of the volunteer corps in general, as well as to that of all the lower classes of the people.

'I trust and believe that, sensible of its incalculable danger, our protectors will, on every future emergency upon which their interposition may be wanting, display a similar spirit; and that the poorer part of our countrymen, who have had the merit of submitting to their hardships with modesty and patience, and of whom it must in justice be said the number is very great, will regard them (as I

doubt not they will) not as the creatures of despotism, or as the proud and selfish men of the earth retained or interested to oppress the lower orders, but as men who compose the heart of their country, who feel for their fellow-countrymen the affection of brethren, and whom nothing but a concern for their common security could have reconciled to the idea of arming against them.' P. 21.

## MEDICINE, &c.

ART. 23.—*Gottfried Christian Reich, M.D. on Fever, and its Treatment in general. Published by Command of the King of Prussia, by the higher College of Medicine and Health of Berlin.* 1800. *Translated from the German by Charles Henry Parry. To which are added, a Preface by the Translator, and an Appendix by Caleb Hillier Parry, M. D. F.R.S. &c.* 8vo. 3s. 6d. *sewed.* Cadell *and* Davies. 1801.

This author professed to have discovered a cure for fevers, which was, after many previous attempts to sell it, purchased by the king of Prussia, and published. It appears to be the muriatic acid. Much idle theory is employed to establish the operation of this remedy; and the advantages of curing fevers rapidly and certainly by it are ostentatiously pointed out. We shall not, however, enlarge on the subject. Every one acquainted with fevers knows that no single remedy can cure them. It is a disorder of the functions, a disturbance of the æquilibrium of the sanguiferous and nervous systems, which must be gradually restored. Dr. Parry thinks that the muriatic acid has been of service in some fevers; and we cannot most slightly doubt it. All mineral acids are occasionally entitled to the same praise.

ART. 24.—*Dissertatio Medica Inauguralis de Catharticis, quam pro Gradu Doctoratûs in Medicinâ in Academiâ Lugduno Batavâ, &c. Eruditorum Examini submittit Johannes Hull, Anglus, &c. &c.* 8vo. No Publisher's Name.

This thesis, published in 1792, has only now reached us. To inquire minutely into its merits is, therefore, at this time, and in this journal, highly improper. We may add, however, that we have looked it over with some care, and think it, on the whole, a very respectable performance.

ART. 25.—*New Progress of Surgery in France; or Phænomena in the Animal Kingdom. Published by Command of the French Government. Translated from the French of Imbert Delonnes, M. D. by T. Chavernac, Surgeon. Embellished with very curious Plates.* 4to. 4s. *sewed.* Kay. 1801.

It is impossible to express the disgust we feel at the very pompous and extravagant panegyrics bestowed on himself by the author, who succeeded in removing a large sarcocele and sarcoma of the cheek. True merit is silent and humble: it never blazons its operations, or gilds them with a splendor superior to their intrinsic desert. Such assumed laurels we shall always wrench from the wearers.

'  'Tis the world's debt to deeds of high degree;
But, if you praise yourself, the world is free.'

The operations were undoubtedly considerable; but they required only a cool mind and a steady hand. Many such have been performed in England, without a word having been said upon the subject. The plate of the sarcoma, in the second instance, is familiar to us; and we strongly suspect its being a copy.

ART. 26.—*Observations on Mr. Home's Treatment of Strictures in the Urethra; with an improved Method of treating certain Cases of those Diseases. By Thomas Whately.* 8vo. 2s. 6d. Johnson. 1801.

Mr. Whately, with great propriety, opposes the indiscriminate use of caustics in strictures of the urethra, and urges some strong objections to the methods employed by Mr. Home. His own plan consists in using smaller bougies, putting a determinate quantity of the caustic on the point, and coating it with a thin lamina of bees'-wax, which defends the urethra for a time from the action of the caustic, and is dissolved, after remaining for a little while on the strictured part; thus confining the caustic to the contraction. On the whole, we highly approve of our author's plan, and have found it, on trial, free from many inconveniences attached to the former.

## EDUCATION.

ART. 27.—*An Epitome of Geography; arranged after a new Manner, and enlivened by References to History. In Three Parts. By J. Evans, A. M.* 8vo. 1s. Symonds. 1801.

A useful little introduction to geography, which the author printed for the assistance of his own pupils, and which may be adopted with advantage in other seminaries of education.

ART. 28.—*The Juvenile Travelers; containing the Remarks of a Family during a Tour through the principal States and Kingdoms of Europe: with an Account of their Inhabitants, natural Productions and Curiosities. By Priscilla Wakefield.* 12mo. 4s. 6d. *Boards*, Darton *and* Harvey. 1801.

As children should be made acquainted with the prominent features in the characters and manners of other countries, and as books of travels are frequently unfit for children, on account of improper passages in them, and of a mode of description beyond what they can comprehend, Mrs. Wakefield, with her usual judgement, has undertaken to compile this little work for the use of her juvenile friends.—The tutors and governesses of youth of both sexes are under very great obligations to Mrs. Wakefield for her different labours to smooth the ruggedness of their department, and to render instruction easy and profitable to their pupils. The present performance is entitled to an ample portion of praise, for the descriptions which are given; but we think the author has attempted to be rather too brief. We wish she would take notice of this hint, if another edition should be called for. The price of two such volumes would not be considered by parents as too much for a book of geography. If she will interweave enough to make it double its present size, by adding a little more to the description of places, and by speaking something of the great persons who have been natives of them, she will render it as serviceable a book for children as any we know of in general use.

ART. 29.—*An abridged Dictionary of the Government of French Verbs, Conjunctions, and Prepositions, By M. Loriot, M. A.* 12mo. 1s. 6d. Rivingtons. 1801.

The greatest cause of difficulty and perplexity to the English student of the French tongue arises from the different prepositions which govern verbs and nouns in the two languages.—M. Loriot has afforded very considerable assistance on this head, in a small compass, and at a price which will render it a desirable book to every learner.

ART. 30.—*Aphorisms for Youth, with Observations and Reflexions, Religious, Moral, Critical, and Characteristic; some original, but chiefly selected, during an extended Course of Reading, from the most distinguished English, French, and Italian Writers. Interspersed with several Pieces of original Poetry.* 8vo. 5s. *Boards.* Lackington *and* Co. 1801.

Maternal solicitude in the education of a beloved daughter, we are told, gave rise to this collection. It is not wonderful, as her daughter's improvement was equal to her wishes, that the fond mother should be pleased with a book which she had composed expressly on her account. We, who judge impartially, cannot think these aphorisms had much to do with her success: the French and Italian ones are extremely incorrect.

## POETRY.

ART. 31.—*Tears and Smiles; a miscellaneous Collection of Poems. By Peter Pindar, Esq.* 8vo. 5s. 6d. *Boards.* West *and* Hughes. 1801.

Peter Pindar's tears, since the change of ministers has not contributed to fix his *friends* in the seat of power, have been 'duly shed.' We wished to witness his *smiles*; but poets, from the time of Master Stephen, have been very 'melancholy and gentlemanlike.' To smile would be as unsuitable as for a pupil of Chesterfield to laugh. We would therefore amend the title, and style this collection 'Tears and Lamentations.' In short, with the recollection of the coruscations of genius that once dazzled us, we can scarcely avoid adopting something of the gloom of the present performance, and of exclaiming—'Sorrow's the mode!' &c. We perceive, unquestionably, the parting twilight; and we, indeed, sorrow at the decline of that wit which has so often, both in public and private, 'kept the table in a roar.'

The poems in this little collection consist of an elegiac ballad, entitled Julia, or the Victim of Love; of a legendary tale; and of a bundle of odes. The first is a collection of love-elegies, strung together by a very slight story; the second is a comic burlesque of such tales, founded, in the *event*, on the story of Edwin and Angelina, but not conducted with that humour which we should have expected from Peter in the hey-day of youth, nor with that delicacy which the public has in general a right to demand.

We forgot to mention the new-old ballads, viz. the imitations of our ancient poets; but, in these imitations, Peter is not peculiarly successful. In those of sir T. Wyatt he appears to the best advantage: in the others, the antique garb but ill conceals modern language, modern ideas, and, above all, that *mannerism*, of which few can divest themselves.

As a writer of odes, we have had numerous specimens of Peter's

talents; and in these we think he succeeds the best. As to the present collection, the subjects are congenial to his taste. From their length, he seems seldom to languish, and the whole preserves the smartness, the brilliancy of an epigram, with sometimes the higher qualities of its peculiar nature. We shall select one as a specimen.

'ODE ON THE ANCIENTS.

" All has been said—the world has nought to yield:
Alas! there's nothing new beneath the sun:
The ancients with their hooks have reap'd the field;
All that can be imagin'd has been done.
The ancients for the moderns were too stout;
Yes! the deep mine of knowledge is work'd out!"

'So cries the world! but who are these that speak?
Men of no *nouse*, most wonderfully weak!
If things are *so*, why, what a fate is mine!
Lord help the Muse! she never penn'd a line.

'Reap the whole field! not half on't, I'll be sworn:
They've only taken a few sheaves of corn.
The mine exhausted! Poh! I'll hear no more—
They've only gather'd a few grains of ore.

'Appear but Genius, Genius soon will find
New matter to improve and charm mankind;
Teach on the wildest heath the rose to blow:
Genius, the rod of Moses at the rock,
Shall, by a magical and happy stroke,
Bid the rich stream of wit and wisdom flow.

'The brains of men, in general, are a pool,
Wrapp'd in death-stillness, comfortably dull;
Like motionless poor Lethe, void of spirit:
But now and then (like Milton, for example,
Or Shakspeare, each indeed a beauteous sample,)
Into existence pops a wight of merit:
An ocean, lo, his brave ideas rise,
That mounts, and with its thunders shakes the skies!' P. 160.

ART. 32.—*Odes to Ins and Outs. By Peter Pindar, Esq.* 4to. 2s. 6d. *sewed.* West *and* Hughes. 1801.

Peter's aversion to Mr. Pitt is irreconcilable; and the present ministers, as a part of the same set, receive little quarter from his satiric scythe, which, nevertheless, on this as well as on several late occasions, seems to have lost its edge. It is rather a flail, which strikes forcibly from its weight alone. The state of the nation, however, since the change, is so greatly varied, that, as our arch poet generally catches the Cynthia of the minute, we should not be surprised to find him the panegyrist of those whom he now treats with so much contempt. At least we would advise him to try; and, should his sentiments sustain no shade of difference, he will recollect that poets succeed best in fiction: as for himself indeed, he has never succeeded worse than on the present occasion; gross abuse and illiberal invective have taken place of lively satire or elegant irony. We shall add, as usual, a specimen, and have attempted to find the best: we know not that we have been successful; but if we have, it is his *shortest* ode.

'ODE IX.—To HENRY DUNDAS, Esq.

'For a great empire, fast undoing,
Something indeed should have been brewing,
Better than brandy and strong beer:
Something was wanting, to my humble thinking,
Besides good eating and hard drinking,
To keep the leaky ship from foundering clear:
Yet 'tis well known that e'er the vessel's sunk,
The sailors commonly get drunk.

'Now thou art off, I long to see,
In thine own language, "*Wha wants me?*"
It will not be at all surprising
To catch thee, Harry, advertising.
If mad to face a second storm,
Take an advertisement in form.

'ADVERTISEMENT.

'A steady man, near sixty years of age,
Would very willingly engage
As butler to a minister of state,
And overlook the plate.

'But should the plate by chance be carried off,
And not a hogshead or a bottle left,
He begs to say, he won't be fool enough
To answer for the leakage or the theft.

'If wanted, he can have, by God's good grace,
An exc'lent character from his last place.
Please to direct to Mister H. Dundas,
At the old sign—the bottle and the glass.' P. 52.

ART. 33.—*The Shoe-Black. Dedicated to the Right Hon. Abraham Newland.* 4to. 3s. Cawthorn. 1801.

We remember, when we were school-boys, that an ingenious mode was introduced among us of keeping our trifling secrets to ourselves. A number of friends would write down a string of words, and opposite to them, in another column, place words of a different meaning; these two rows were always substituted one for the other, and by these means, if the master intercepted a letter, he was as much in the dark as if it had been written in Chinese. If the same mystic mode of correspondence be not in use between the writer and the cashier to whom the work is dedicated, we cannot account for the construction of the Shoe-Black, unless the author has filled a lottery bag with the shreds of a dictionary, and drawn the words as chance directed. We will treat our readers with a few lines from the beginning of the poem, as an elegant sample of the 'palpable obscure.'

'Near the old widow's cold but gaudier bed
That draws the living to admire the dead;
Where bolder sceptics, village rank, repair
To read Apocrypha in house of pray'r.
Near the once house of pray'r, whence faithful youth
Set out, in tavern to proclaim the truth,

What time some passing mongrel halts—to smell
Bye wall, where lately he was wont to stale.
Where P—tt, no Brutus, nor a Cæsar he,
Compound of each, my country, true to thee,
Is plainly thine:—no free-begotten slave,
Meanly to sculk, or enviously rave.
And where sits G—n—e; his the lyre all strung,
Not less than chorus in a grateful song.
Those courts where brother brother meets, a league
To club their leisure in a gown and wig:
Or, call'd within, immortal combat shows
The tug of war 'twixt reconciled foes.
Near and but near those cells whose honied store
Not long collected, shall be seen no more.' P. 5.

ART. 34.—*Extract from the Regicide; an heroic Poem, in Twenty-six Books: with Notes, and a Dedication to the Friend of Tallien. By the Author.* 8*vo.* 6*d.* Bickerstaff. 1801.

'The Author,' in his dedication, has compared himself to an ass between two bundles of hay. His modesty is so great in this comparison, that we should not attempt to question its propriety—only that we never heard of more than one ass who either *sang* or *spake*, and he spake the truth.

The extract before us comprises a string of abuse, vented against almost all the letters of the alphabet.—Notwithstanding that the writer has chosen that side of the question against which it is not safe to reply, he has wisely forborne to print names at length. Dull beasts have generally a strong principle of self-love in their composition; else their folly might lead them into mischief: but a living ass may bray with safety over a dead lion.

## NOVELS, &c.

ART. 35.—*The Microcosm. By the Author of Vicissitudes in Genteel Life.* 5 *Vols.* 12*mo.* 1*l. sewed.* Mawman. 1801.

We are so much puzzled by Mrs. John and Mrs. George, by children and grand-children, in the course of this work, that we could scarcely proceed without an abstract of the genealogy of the Spencers, the Percivals, and the Abingdons. We regretted this the more, as the author's descriptive talents are above mediocrity, and his plot is artfully enveloped. Could he have repressed his exuberance, he might have formed a pleasing tale in about two, instead of five, volumes.

The author of Vicissitudes in *genteel* Life should, however, have been better informed than to have brought the lord-chancellor to a private house, and invested him there with all his judicial powers. But we know not how to draw his indictment; for he will infallibly escape conviction, by saying that he has not depicted the vicissitudes of *high* life. *Genteel* and *gentleman* are now words so hackneyed and misapplied, that we scarcely can discover their limits. A want of knowledge of human nature, and of life in general, are, however, too conspicuous in the present volumes.

ART. 36.—*Justina; or, the History of a Young Lady. By Harriet Ventum.* 4 *Vols.* 12*mo.* 18*s. sewed.* Badcock. 1801.

The heroine of this novel, like the heroines of novels in general, has

first her sufferings allotted to her, and is then rewarded with a husband. There is nothing in the style or formation of this work that entitles it to any particular notice; nor is there any thing absurd or ridiculous enough to subject it to critical censure.

ART. 37.—*Adamina; a Novel. By a Lady. 2 Vols. 12mo. 7s. sewed.* Vernor *and* Hood. 1801.

A tame spiritless performance, without novelty of incident or a single ray of imagination;—one of the milk-and-water messes which the young ladies of the present day are continually craving for, because their instructors have neglected to prepare their stomachs for the digestion of more solid food.

ART. 38.—*Romances: Second Edition, corrected. To which is now added, a modern Romance. By I. d'Israeli. 12mo. 4s. sewed.* Murray *and* Highley. 1801.

We noticed the first edition in our XXVIth volume, N. A. p. 52. and then paid a just tribute to the author's talents. In this second edition the poetical part is omitted, and its place supplied by a modern romance. This, as Mr. d'Israeli confesses, is a common story; nor has the relation any extraordinary merit. The volume would have lost none of its attractions, had it been omitted.

ART. 39.—*Letters from Eliza to Yorick; transmitted from a Gentleman in Bombay, and now first published. 8vo. 3s. sewed.* Ginger. 1801.

The tissue of sentiment, long since published under this title, has disgusted the more sober reader, as it was generally understood that it covered a connexion of a very different kind. Be that as it may, the actors in the scene are alone answerable for the event: yet the example has been contagious; and, for a time, sentiment was the bait which allured many an unsuspecting damsel. We know, indeed, that persons of the strictest moral characters have admired these letters, and have either forborne to look at the gulf below, or, judging from themselves, were unwilling to believe that any such existed. We can pardon their credulity, from a respect to the rectitude of their feelings and the propriety of their own conduct. If, on the other hand, we be pronounced uncharitable, we could easily exculpate ourselves, at least in part, by many unlucky anecdotes. It is indeed asserted, in the preface to the present collection, that no other sentiment appears to have prevailed than what is expressed. This is admitted; and a bungler in intrigue would Sterne have been, had any thing else appeared. The lady, perhaps, at the time of writing, might have thought him sincere.

We have some slight reasons for considering this collection as a fabricated one; but they are *very* slight, and the attempt was unnecessary. Many letters of a similar kind, in Mrs. Draper's own writing, have we read; nor were they at one time difficult to be procured. In short, we totally disapprove, for the reasons already assigned, of any such publication. It is indeed no longer fashionable, and not likely to be again so extensively injurious as we know it has been.

## MISCELLANEOUS LIST.

ART. 40.—*A Selection of Twelve Heads from the Last Judgement of Michael Angelo. Folio.* 4*l.* 4*s.* Robinsons. 1801.

These capital and interesting prints are from drawings by Mr. Duppa, who published a work on the subversion of the papal government. They exactly represent the drawings made from the originals of the same size, and are accompanied with a curious print of the Last Judgement of Michael Angelo, engraved by the celebrated Bartolozzi in the seventy-fourth year of his age. After a dedication to Dr. Marshall, there follows an account of Michael Angelo's chief merits as a painter. That great man is supposed never to have painted in oil, as he disliked that manner, and always to have used fresco. A particular account is then given of this superb painting, in which Mr. Duppa displays considerable taste and knowledge of his art. The plates are engraved with great force and spirit, and the subjects are terribly eccentric, so as thoroughly to express the uncommon style of the master. The head of the master of the ceremonies to pope Paul III., who is represented with asses' ears, is doubly interesting, from the anecdote attached to it; and the fore-shortening of one of the faces is wonderful.

Connoisseurs and artists in particular are largely indebted to Mr. Duppa for a more intimate acquaintance with the style of this great master; who, disgusted with the tame uniformity of his contemporaries, first introduced into painting infinite force and variety, and, by sometimes out-stepping the bounds of nature, taught to imitate with ease her utmost exertions.

ART. 41.—*An Historical View of the unavoidable Causes of the Non-Residence of the Parochial Clergy on their respective Livings; wherein more than One Hundred Acts of Parliament are referred to, and many of them amply discussed, during an Interval of near Six Hundred Years: with a particular Investigation of the Act,* 21 *Henry* 8, *c.* 13, *on the Subjects of Residence, Farming, &c. And Remedies proposed for improving the Condition of the Clergy. By the Rev. J. Malham.* 8*vo.* 2*s.* 6*d.* Cobbett *and* Morgan. 1801.

The title-page is a sufficient index to the contents of this work, on which its author has bestowed great pains, and for which he is entitled to the thanks of the clergy. The late *qui tam* actions, so properly suspended by the legislature, suggested the subject; and, in treating it, which is done with great judgement, much historical information is introduced. The state of the clergy is not however so considerably depreciated from that of former times as our author seems to imagine; and, if the value of our coin be altered, it is to be recollected that the value of tithes has always been increasing, and that, in consequence of the perpetual accession of inclosures, many poor vicarages and sequestrations have become important benefices. Some of the remedies proposed are also injudicious: it is by no means necessary to call the attention of the laity to the property of the clergy; and a *bonâ fide* valuation of the livings in the kingdom would make them appear very differently from what they do in Eaton and Bacon. The subject of non-residence will probably be soon taken up by parliament: and we may reasonably hope that no malicious prosecutions will be hereafter permitted, or encourage-

ment given to a fanatical or an avaricious spirit, to devise the means of annoying a worthy clergyman, or filling the pocket of a base informer. To the members of either house, who wish to see in a small compass the chief points in which an alteration in our present statutes is desirable, this work offers much useful information.

ART. 42.—*Auxiliary Remarks on an Essay on the 'Comparative Advantages of Oxen for Tillage in Competition with Horses.' In a Letter to Sir J. T. Dillon. To which are added sundry Communications on this interesting Subject. By William Tatham.* 8vo. 1s. Scott. 1801.

Our author has thrown considerable light on the subject of employing oxen in the yoke, both in his arguments and from experiment. We can assure the reader, that, on the principal topic, as well as on several collateral branches, he will find much more instruction and entertainment than he has reason, from the title, to expect; and many of the facts merit a more permanent situation than can be afforded by a fugitive pamphlet.

ART. 43.—*Review of a Battalion of Infantry, including the eighteen Manœuvres, illustrated by a Series of engraved Diagrams; to which are added the Words of Command; with an accurate Description of each Manœuvre, explaining the Duty and ascertaining the Situation of the Officers through the various Movements of the Corps; forming an easy Introduction to this Part of the System of British Military Discipline.* 8vo. Egerton.

This little work is clear, correct, and precise. It will be of the highest use to young officers. We would recommend it to those of the volunteers.—But, thank heaven! 'Othello's occupation's o'er.'

ART. 44.—*Observations on the Formation and Uses of the natural Frog of the Horse; with a Description of a Patent artificial Frog, to prevent and cure contracted Hoofs, Thrushes, Cankers, and Sand-Cracks. By Edward Coleman.* 8vo. 1s. 6d. Johnson.

If, as Mr. Coleman asserts, and as we think he has rendered probable, nature have designed that the frog of the horse should occasionally touch the ground, the fashion of keeping him raised in the stable by high-heeled shoes must be highly injurious. It contracts, according to his opinion, the heels, produces corns, &c.; and, by affecting the more sensible internal frog, occasions, not unfrequently, incurable lameness. To remedy this defect, he applies to the shoe what he calls an artificial frog; that is, he inserts in the cavity of the shoe a substance which, while the horse stands in the stable, affords a constant pressure. We own, that the idea has, in our eyes, a suspicious refinement; but its utility can be decided only by experience.

ART. 45.—*The Angler's Pocket-Book; or, complete English Angler; containing every Thing necessary in that Art: to which is added, Nobbs's celebrated Treatise on the Art of Trolling.* 8vo. 1s. 6d. West *and* Hughes.

The author professes to have collected from experience and observation only; and, so far as our recollection assists us, (for our angling days are long since passed,) he has told the truth. The young fisher will find many useful and judicious hints in this little manual, in conjunction with some, but not many, errors. Nobbs's Art of Trolling is already well known to, and highly valued by, aquatic sportsmen.

ART. 46.—*Angling, in all its Branches, reduced to a complete Science. By Samuel Taylor, Gent.* 8vo. 5s. *Boards.* Longman *and* Rees.

This is a much superior and truly scientific work. The author has followed his diversion in many rivers of the first importance, which he has particularly noticed, and has given numerous and very valuable hints on the subject. On the nature of fishes, particularly the salmon, we differ from him: the small salmon which have roes are evidently of a different species; and we seldom find roes till the fish has reached seven or eight pounds. Salmon above seventy pounds are, we think, very rare; we should almost doubt their existence. In many places the term *angling* is confined to fishing with a worm, or any bait which rests at the bottom; it is, however, sometimes, as by our author, extended to all kinds of fishing by means of a rod and line; and, as a proper supplement, Mr. Taylor gives some useful instructions for making every part of the apparatus, particularly artificial flies. Indeed every fisherman should be able to make his own decoys, and adapt their shape and appearance to circumstances.

ART. 47.—*Eight Meteorological Journals, of the Years* 1793 *to* 1800, *kept in London. By William Bent. To which are added, Observations on the Diseases in the City and its Vicinity. Also an Introduction, including Tables, from Eight preceding Journals, of the greatest, least, and mean Height of the Barometer and Thermometer, in every Month of the Years* 1785 *to* 1792. 8vo. 15s. *Bound.* Bent. 1801.

We have already noticed this work in its successive publication more at length. It is only necessary now to announce its abridged and collected form.

ART. 48.—*Chronological Tablets; exhibiting every Remarkable Occurrence from the Creation of the World; with characteristic Traits of each Event. Chiefly abridged from the French of the Abbot Lenglet Du Fresnoy. Arranged alphabetically, and augmented from authentic Sources to the present Time, particularly as regards British History. Comprehending brief Accounts of Inventions and Discoveries in every Department of Science, and Biographical Sketches of Three Thousand Illustrious or Notable Persons.* 12mo. 3s. *Boards.* Vernor *and* Hood. 1801.

This little *vade mecum* is executed with considerable accuracy, and may, in general, be depended upon as a book of reference.

ART. 49.—*L'Orgueil Corrigé—Pride Corrected: a Comedy, in Three Acts. By J. Florian.* 12mo. Harris. 1801.

M. Florian's intention, in the composition of this little piece, was, to offer a drama, free from love-scenes and other improprieties, to the young ladies of a school with which, we understand, he is connected. There certainly is not a better method of teaching children to pronounce a foreign language than by making them become actors in plays, provided care be taken to render them harmless and inoffensive. Our author may with justice be said to have succeeded in this particular, and his language is also generally correct; but the '*Ah ciel!*' and the '*Ah Dieu!*' might have been spared to a schoolgirl; and the translation should have been a little more attended to.—The prologue and epilogue are very appropriate.

# APPENDIX

TO

# THE THIRTY-THIRD VOLUME

OF THE

## *NEW ARRANGEMENT*

OF THE

# CRITICAL REVIEW.

---

ART. I.—*Mémoires de l'Institut National des Sciences et des Arts. Memoirs of the National Institute of Sciences and Arts. (Continued from Vol. XXXII. p. 539.)*

WE proceed to the second volume of the class of Moral and Political Sciences. It opens, as usual, with the subject of prizes; and we learn, in this chapter, that, notwithstanding a variety of dissertations have been presented on most of the questions proposed in the anterior volume, worthy in many respects of notice, yet one candidate alone, M. Joseph-Marie Dégérando, has so far complied with the terms prescribed as to have been honoured with a prize: the question selected by him being, 'Is it true that sensations are transformed into ideas by the means of signs alone?' or, which amounts to the same thing, 'Do our earliest ideas necessarily suppose the assistance of signs?'—The following question, not having been satisfactorily replied to, is again proposed for the ensuing year: 'What are the institutions most proper for establishing the morals of a people?'

The catalogue of printed books presented to the class during the period of the past year follows, than which we have seldom seen a more meagre collection. They are almost exclusively confined to modern subjects, and the present political state of France; they seldom extend beyond the French language, and never exceed the bulk of an octavo. The number of works amounts only to thirty-three.

The 'History of the Class' next presents us with a 'Notice on the Life and Works of M. Deleyre, Member of the National Institute, by M. Joachim le Bréton, Secretary to the Class.' The life of this philosopher, though not strongly marked by abrupt reverses of prosperity or misfortune, is, nevertheless, interesting, inasmuch as it is connected with the fraternity of phi-

losophers who partly paved the way for the French revolution, and with many of the events of the revolution itself. Deleyre was born at Portets, in the vicinity of Bordeaux, in the year 1726; was at an early age admitted into the college of the Jesuits, and, when only fifteen years old, was invested with their order. He was a youth of much imagination and sensibility, and at the same time strongly addicted to mental melancholy; in consequence of which, it is by no means astonishing that he should have become an enthusiast, that he should have uninterruptedly directed his thoughts, as we are informed he did, to the two great extremes of futurity, heaven and hell, and that his character should have fixed him far more frequently upon the terrors of the latter than the beatitude of the former, and distressed him with perpetual agitations of mind. Deleyre, however, did not long continue in this distressed state of mind; the Jesuits began to undertake the instruction of youth, and to retrace their own studies, and the arguments on which their suppositions were founded. Deleyre recanted; he quitted the Jesuit society, and with this, we have no small reason to believe, every religious faith whatever. As he was of plebeian birth, he could have no expectations from the court; his only alternatives were philosophy and the law: the latter did not exactly correspond either with his sensibility or his independence of mind. Montesquieu was at this time the Mæcenas of Guienne: he became the patron of Deleyre from a thorough conviction of his talents; he introduced him to Diderot, d'Alembert, J. J. Rousseau, and Duclos; and his destiny was fixed: he decided for philosophy, and became a writer in the Encyclopédie. In this new capacity his hardihood did not yield place to his collegues; the famous article on fanaticism was soon known to have been of his production, and it was likely to have been essentially detrimental to him; for he had now fixed his attention upon matrimony, and had obtained the consent of a lady, who promised to consummate his happiness; but the priests of the parish in which the ceremony was to have been celebrated refused to unite them, in consequence of their having heard that Deleyre was the author of this article. His patronage, however, was at this time increased, and he had found a warm and steady friend in the duc de Nivernois. This nobleman had the goodness to interfere in the dispute, and Deleyre obtained the fair object of his wishes. He had before this solicited, and successfully, the appointment for him of librarian to the Infant prince of Parma, who was at this period committed to the immediate care of Condillac. In this situation he continued for some considerable time; and although a dispute respecting the mode of educating their pupil at length separated him from this celebrated logician, he appears to have always entertained for him the highest degree of respect.

At the commencement of the revolution, Deleyre proved himself warmly attached to the popular side of the question: he was elected a member of the National Convention and of the Committee of Public Instruction. It is to his credit that he was a Girondist; and his natural taciturnity prevented him from falling a sacrifice to the tyranny of Robespierre. He made his will while in Italy, in the year 1772. At this period he seems to have anticipated the approaching misfortunes of his country: 'France,' says he, in this curious paper, 'the country in which I was born, has, from the corruption of her manners, fallen under the yoke of despotism. The nation is too blind or too indolent to desire or be able to free herself. The government is become odious, and will terminate in despotism.' He adds, that, in consequence hereof, he is tired of life, and that, as he is uncertain whether he shall have patience enough to wait for his decease, or courage sufficient to hasten it, he deems it a duty to be prepared with a testament, explicitly stating all his desires concerning himself and the little he has to bequeath. This sort of language was not uncommon to the Encyclopedists and their immediate friends. We have lately had occasion to point out a similar conduct in the life of the abbé Raynal; and we might refer for other examples to d'Alembert and Frederic the Great. But, with all their vaunting, the French philosophers appear to have had more attachment to life, or more dread of dissolution, than the German sentimentalists. With the latter, suicide was common, even among many who seldom boasted of performing it: among the former it was often threatened, but we have scarcely an individual instance of its having been executed. Our philosopher died in the beginning of 1797, in the seventy-first year of his age, of progressive senility alone. The three chief works in which he engaged during his life-time were, an Analysis of the Philosophy of Bacon, in whose general opinions he appears to have been profoundly versed; a variety of articles introduced into the body of the Encyclopédie; and a General History of Voyages, a voluminous publication, which extended to no fewer than nineteen bulky octavos. Upon his decease were discovered many inedited works, and among the rest a poetic translation of Lucretius. Of such a translation, France, as well as every other country in Europe, except Italy, is much in want; but, from what we have seen of M. Deleyre's metrical ballads, we strongly doubt his capacity to do justice to the inimitable beauties of the Roman bard: several of these ballads have, nevertheless, obtained the honour of being set to music by his friend Jean-Jaques. It is more to the praise of Deleyre, that he was an enemy to all persecution, and, when in the possession of power, acted with kindness towards many who were of different sentiments from his own, and by whom he had been undeservedly ill-treated.

We proceed to the Memoirs; of which the first is on Hesiod, by M. P. C. Levesque. The acquaintance of this writer with polite literature, as we have already had occasion to admit, is considerable; but in the paper before us the sceptic is too obvious, and there is an unnecessary promptitude to disparage the sacred writings, upon a comparison of several of the narrations contained in them with similar narrations of profane historians or poets of high antiquity. Whence M. Levesque collects that the doctrine of guardian spirits surrounding the earth, and noticing the actions of mankind, was admitted at a much later period into the creed of the Jews than into that of the Egyptians or the school of Pythagoras, we are wholly at a loss to conjecture; and still more so what he means by the apocryphal book of *Enoch*, from which, he tells us, this belief was first propagated among the former. In the note, in p. 14, there is a sneer upon the subject of the universal deluge of Moses, which we shall content ourselves with pointing out, without repeating. The admission, among all nations, of the pre-existence of a golden age, or a period in which the life of man was longer than at present, the diseases to which he was exposed fewer, and the productions of nature more perfect and spontaneous, should have induced him to have inquired more philosophically into the foundation of so universal a tenet, rather than to have contented himself with asserting, that 'the pride of man seeks to console itself for the evils which he suffers by the thought that he was at first created for happiness,' that 'he is elevated by the consideration of his primitive estate, and soothes himself for the humiliation into which he has fallen by the fantastic recollection of his original greatness.' Not so the real sage of either ancient or modern times. When the sagacious Lucretius investigated this subject upon the principles of Epicurus, it appeared to him that such must have been the fact from the existing phænomena of nature; and the geological system of Kirwan has, for the most part, supported the same tenet. Our sceptics, however, who would be thought to believe nothing but upon the most definite evidence, are sometimes the most fanciful of mankind. M. Levesque will not acknowledge any other poem as the production of Hesiod than the Works and Days, because some *doubts* were entertained by Pausanias whether he were the real author of the Theogony, or the Shield of Hercules. Having read, however, in the same historian, that Orpheus was vaguely reported to have written a poem on Theogony, may not this, he inquires, which bears the name of Hesiod, have been that same poem of Orpheus, re-edited and improved? It would have been more in character with himself to have *doubted* whether any such person as Orpheus had existed, since his history is not only, for the greater part, assur-

edly fabulous, but, according to Cicero, his existence was denied altogether by Aristotle and the Peripatetics.

'II. On Homer. By M. P. C. Levesque.'

'III. On the Manners and Customs of the Greeks in the Age of Homer. By the Same.'

Notwithstanding all the curiosity that has been exhibited, and all the researches that have taken place, throughout every century of the last thousand years, with respect to this admirable and extraordinary poet, it is astonishing how grossly ignorant we still remain of every circumstance relating to him. The place of his birth, the æra in which he flourished, his very name and blindness, are all matters of doubt and indecision. Almost every city of Greece contended for the honour of his having been born in it; and yet, after all, it is highly uncertain whether he was in any respect of Grecian origin. In the different chronologies that relate to him, there is a variation of not less than four hundred years as to the period of his existence. His original name, according to Herodotus, if to him we owe the book entitled The Life of Homer, was Melesigenes; but it is equally problematical whence he acquired this name, or became afterwards possessed of that of Homer—a surname bestowed upon him, according to some, from his having been sent as a *hostage* by the inhabitants of Smyrna to those of Colophon, on the termination of a war between these two powers; and, according to others, from his generally supposed *blindness*, ὁμηρος being said to signify this imperfection in the dialect of Cuma. We know not whether he first communicated his poems by recitation or manuscript; we know not whether he composed them with the use of different dialects or confined himself to one alone, the others having been occasionally introduced by the multitude of rhapsodists, critics, and transcribers, who interfered with his works anterior to and during the reign of Pisistratus. Finally, we know not, with any degree of certainty, of what those works consisted; and have reason to believe, that, while we have much attributed him, and still in existence, which he never wrote, we have also totally lost much of which he was the actual author, and have preserved nothing that has altogether escaped mutilation. Nevertheless, we agree with M. Levesque, that we have a vast treasure in what yet remains, and that we ought to content ourselves with it. In spite of every variation and suppression, the genius of Homer still survives; his chief beauties have escaped the desolations to which they have been exposed: let us be sensible of their value, without indulging in superfluous regrets. Homer was nearly such as we find him at present when the ancient princes of India and Persia were desirous to obtain versions of him, when he was translated into Syriac and Armenian, and when the

chief sages of Greece, who have ever illumined the literary world, rendered homage to his genius.

The object of the second memoir is to prove, from several customs and manners recorded in the Iliad and Odyssey, and analogous to those in present use among many of the northern nations, that the Greeks were of Muscovite or Kamschadale origin. This is a truly superficial paper; and M. Levesque might as well have contended for their descent from North or South America. The customs he investigates are, for the chief part, common to most nations who have pretensions to any high degree of antiquity; and, where they partake of any peculiarity, they are easily referable to the hyperboreal Scythians, of family lineage with the secondary settlers in Attica. Whom he means by the Greeks, we know not; whether the *autochthones*, or barbarians, who, according to their own historians, originally inhabited the country; or those daring clans who afterwards took possession of it, under the appellations of Hellenists, Pelasgians, Cadmians, Erectheidæ, &c.; not one of these latter and generic names being once introduced into the inquiry: and upon the whole, if the latter, as we suppose, be the people referred to, we see not the remotest reason for sacrificing the more common opinion, that they were of Egyptian descent, or, at least, migrated into Greece after a considerable residence in Egypt. Their language and alphabet alike declare it; and, according to the confession of Herodotus himself, the two mythologies are in almost every instance the same. 'But I find,' says M. Levesque, 'in the Grecian choice of the ministers of the altar, an additional proof that these people migrated from the north, and that they hence deduced their primitive religion. The Egyptians specially prohibited this ministry to females; they were admitted to it among the Greeks, and obtained in it a considerable reputation.' This is indeed a bold assertion: Photius, Manetho, or even his own countryman M. Dupuis, if he had condescended to have asked him the question, would have instructed him much better. The assertion of Ptolemy Hephæstion, as recorded in the former of these writers, is known to many of our readers, that Homer had been in Egypt, and, on leaving that country, carried with him a copy of an Odyssea and of a History of the Trojan War, two poems deposited in the temple at Memphis, which were written by Phantasia, a PRIESTESS in that temple, and were communicated to him by Phanites, one of its scribes. Should we now even admit, with many critics, that but little credit is to be given to this assertion of Hephæstion, as to its relation to Homer, every one must at least acknowledge that the idea of an Egyptian priestess was common in his æra, and that, as the narrator was himself of Egypt, he could not have uttered so absurd

a declaration, had the religion of his countrymen sedulously restrained females from that office. M. Levesque has, however, adverted to this very anecdote in his former memoir; and he tells us that the whole is an allegory, for that *never* was any Egyptian named either Phantasia or Phanites, which are merely Greek terms, and of Greek import alone. To such an assertion we have been no strangers since the publication of the Essay on Homer prefixed to Mr. Pope's version; but we have never met with it so sturdily advanced as in the present instance. The objection was again introduced, if we recollect aright, by Mr. Morritt, in his controversy with Mr. Bryant upon the subject of the Trojan war; and though, as to the general question, we cheerfully joined issue with the former, we thought, in their criticism upon this passage, the latter had by far the advantage. The word *P'hant* or P'hont (whence probably Phantasia) was, doubtless, an Egyptian term, and one immediately expressive of the priesthood. Even the Coptic, or modern Egyptian, still retains it: thus the expression in the Septuagint, Genesis xli. 45. Πετεφρη ιερευς Ηλιουπολεως, 'Petephree, priest of Heliopolis (or the city of the sun),' is rendered in the Coptic 'Petephree P'HONT On ti Baki,' Petephree, priest of the city On, or 'the city of the sun.' The Greeks themselves, indeed, imported the same term into their own language: thus Hierophantes (Ιεροφαντης), a ministering priest; Theophantos, a priest of God; Diophantos, a priest of Jupiter. It is in reality highly probable, and if M. Levesque has consulted sacred and profane history more extensively than he appears to have done, he would have united with us in opinion, that every ancient religion equally admitted men and women to the mysteries and performances of its sacred functions. It is also equally probable that the Greek Π and Φ (*pi* and *phi*) were alike derived from the Egyptian aspirate ΠΙ (*pi*); and consequently that *Pi-an* or *P'-an*, and *Phi-an* or *Ph'-an*, are of the same import, and mean the 'breath or emanation of the Sun,' *light itself*. The true signification of Phantasia is an *apparition*; of Phanites, an *elucidator*, or one who makes an object or proposition *appear* clearly—who brings it to *light*: they are both derivations from the same radical, and equally refer to *light* in its Egyptian appellation, by which all things obtain an *appearance*.

'IV. On the Commercial Relations of the United States with England. By M. Talleyrand.'

This, as may be expected, is an important paper. Its object is to prove, that, notwithstanding all the gratitude and attachment of America to France, and her aversion and apparently eternal disjunction from Great-Britain during the war which produced her independence, she has recovered her inclination for the latter country to a greater degree than at any period an-

terior to the war; and, while she has broken off all commercial and other connexions with France, has thrown nearly the whole of her mercantile concerns into the English market. The causes of this unexpected alteration are principally as follow. In the first place, the French government itself, after having established American liberty, was afraid of the propagation of the principles on which it was founded, and very absurdly discouraged as much as possible all intercourse between the two nations; and, secondly, identity of language, a considerable similarity of constitution, a belief that the assistance of France was extended to the United States infinitely more with the view of injuring Great-Britain than of actually promoting their own cause, pre-established national habits and religion, and the more advantageous market offered by England for the sale of all such manufactures as America is in want of, arising from the immensity of their fabrication, the division of labour, and the employment of mechanical powers by which they are produced, the vast capitals of the English merchants, and their consequent ability to admit a longer credit, have once more united the two nations, as it were, into one people. M. Talleyrand justly observes, however, that it does not follow from this circumstance, allowing the separation to have been advantageous to both countries, that all colonies would be benefited by a disruption from the mother state, and the possession of an independent government; on the contrary, that we have only a right to suppose that such would be the event in cases where the mother state, on the one part, could offer the same commercial and other advantages to its colonies as England is continually offering to America; and where such advantages, on the other part, might be seconded by the same misconduct which has been manifested by France.

'V. Continuation of the Work on the Physical and Moral Relations of Man. By M. Cabanis.'

The first part of this laborious disquisition we have already noticed in our Appendix to Vol. XXXI. N. A. p. 486; and the character there ascribed to it will apply to the present memoir, which is even more voluminous than the former, and occupies not less than one hundred and forty pages. M. Cabanis would frequently be more clear if he were less diffuse; he is often, however, fortunate in his elucidations, though we perceive no great degree of novelty in his opinions. His system of generation is that of Buffon; and we perceive too strong a tendency towards the German philosophism of the perfectibility of man. He does not, indeed, advance so far as to conceive that any system of hygieine can render him absolutely immortal, but apprehends that human life, by a due attention to system, may be very considerably prolonged, the faculties in every respect ameliorated, and the attack of death rendered gentle as the softest sleep. It is an

*euthanasia* which has often been speculated upon from the time of our own countryman Bacon, but seldom experienced, even by those on whose decease we should most have expected it. May our author himself be more fortunate!

'VI. Essay on the Advantages of establishing new Colonies under the existing Circumstances. By M. Talleyrand.'

This able politician has long foreseen that, on the conclusion of the war, there must be an immense body of people returned into the bosom of France, whose absence it would be highly beneficial to promote—multitudes irritated to every act of madness by despair—multitudes, whose friends or personal hopes have completely perished by the revolutionary sword. To such the present essay is principally addressed; and the government is strongly incited to fix upon some untried and promising quarter, in which the establishment of new colonies may promise advantage to the mother country, and to give every possible encouragement to such persons to transport themselves thither, as their future residence. We have seen, in the French journals, an address of the chief consul to the republic at large, in which the same idea is continued. Egypt, though hinted at in the paper before us, is now out of the question. Cayenne, however, may still be tried, or the Archipelago on the African coast. Postponing to the next Appendix our further remarks on the productions of this class, we now proceed to

---

The second volume of that of Literature and Polite Arts. It opens with a list of the members of the class, and an abridged history of its labours; the latter consisting of a notice of memoirs inedited or published separately. In these we perceive nothing that needs particularly to delay us. It will be sufficient to state, that they principally refer to papers recommending improvements in many of the public buildings, or in the construction and orthography of the vernacular tongue; and they conclude with the speech of M. Camus, president of the class, upon the distribution of the prizes for painting, sculpture, and architecture.

The history of the class then advances to a notice of the lives of two deceased members. Of these, the first is that of Lemonnier, by M. Mongez. This history is little more than a chronology of the few events into which the even tenor of the existence of the deceased may be divided. It is an omission truly extraordinary in his biographer not to have recorded the date either of his birth or death. All we are here allowed to collect is, that he was the author of some excellent fables, faithful and elegant translations both of Terence and Persius, a few tales ingeniously related, and a few dramatic pieces little known even in his own country. Normandy was his native province; and he appears

terior to the war; and, while she has broken off all commercial and other connexions with France, has thrown nearly the whole of her mercantile concerns into the English market. The causes of this unexpected alteration are principally as follow. In the first place, the French government itself, after having established American liberty, was afraid of the propagation of the principles on which it was founded, and very absurdly discouraged as much as possible all intercourse between the two nations; and, secondly, identity of language, a considerable similarity of constitution, a belief that the assistance of France was extended to the United States infinitely more with the view of injuring Great-Britain than of actually promoting their own cause, pre-established national habits and religion, and the more advantageous market offered by England for the sale of all such manufactures as America is in want of, arising from the immensity of their fabrication, the division of labour, and the employment of mechanical powers by which they are produced, the vast capitals of the English merchants, and their consequent ability to admit a longer credit, have once more united the two nations, as it were, into one people. M. Talleyrand justly observes, however, that it does not follow from this circumstance, allowing the separation to have been advantageous to both countries, that all colonies would be benefited by a disruption from the mother state, and the possession of an independent government; on the contrary, that we have only a right to suppose that such would be the event in cases where the mother state, on the one part, could offer the same commercial and other advantages to its colonies as England is continually offering to America; and where such advantages, on the other part, might be seconded by the same misconduct which has been manifested by France.

'V. Continuation of the Work on the Physical and Moral Relations of Man. By M. Cabanis.'

The first part of this laborious disquisition we have already noticed in our Appendix to Vol. XXXI. N. A. p. 486; and the character there ascribed to it will apply to the present memoir, which is even more voluminous than the former, and occupies not less than one hundred and forty pages. M. Cabanis would frequently be more clear if he were less diffuse; he is often, however, fortunate in his elucidations, though we perceive no great degree of novelty in his opinions. His system of generation is that of Buffon; and we perceive too strong a tendency towards the German philosophism of the perfectibility of man. He does not, indeed, advance so far as to conceive that any system of hygieine can render him absolutely immortal, but apprehends that human life, by a due attention to system, may be very considerably prolonged, the faculties in every respect ameliorated, and the attack of death rendered gentle as the softest sleep. It is an

*euthanasia* which has often been speculated upon from the time of our own countryman Bacon, but seldom experienced, even by those on whose decease we should most have expected it. May our author himself be more fortunate!

'VI. Essay on the Advantages of establishing new Colonies under the existing Circumstances. By M. Talleyrand.'

This able politician has long foreseen that, on the conclusion of the war, there must be an immense body of people returned into the bosom of France, whose absence it would be highly beneficial to promote—multitudes irritated to every act of madness by despair—multitudes, whose friends or personal hopes have completely perished by the revolutionary sword. To such the present essay is principally addressed; and the government is strongly incited to fix upon some untried and promising quarter, in which the establishment of new colonies may promise advantage to the mother country, and to give every possible encouragement to such persons to transport themselves thither, as their future residence. We have seen, in the French journals, an address of the chief consul to the republic at large, in which the same idea is continued. Egypt, though hinted at in the paper before us, is now out of the question. Cayenne, however, may still be tried, or the Archipelago on the African coast. Postponing to the next Appendix our further remarks on the productions of this class, we now proceed to

---

The second volume of that of Literature and Polite Arts. It opens with a list of the members of the class, and an abridged history of its labours; the latter consisting of a notice of memoirs inedited or published separately. In these we perceive nothing that needs particularly to delay us. It will be sufficient to state, that they principally refer to papers recommending improvements in many of the public buildings, or in the construction and orthography of the vernacular tongue; and they conclude with the speech of M. Camus, president of the class, upon the distribution of the prizes for painting, sculpture, and architecture.

The history of the class then advances to a notice of the lives of two deceased members. Of these, the first is that of Lemonnier, by M. Mongez. This history is little more than a chronology of the few events into which the even tenor of the existence of the deceased may be divided. It is an omission truly extraordinary in his biographer not to have recorded the date either of his birth or death. All we are here allowed to collect is, that he was the author of some excellent fables, faithful and elegant translations both of Terence and Persius, a few tales ingeniously related, and a few dramatic pieces little known even in his own country. Normandy was his native province; and he appears

to have conceived his earliest hatred to the ancient *régime* from an objection made againt one of his verses by the public censor to whom it was submitted for approbation. His disposition, however, was peaceable; and the inhabitants of the village in which he was pastor regarded him as a prudent guide, and a tender and compassionate father of his flock: but the revolution, which respected neither talents nor virtues, threw him for eighteen months into a prison, which he only quitted to be guillotined—a punishment he suffered on the 9th Thermidor, in the seventy-sixth year of his age.

A notice on the life and works of Jean-Baptiste Louvet follows, written by M. Villar. The name, character, and labours of this politician are so well known to most of our readers, that we need not enlarge upon the subject. He was born at Paris in 1764, and certainly received from nature the gifts of a lively imagination and a sensible heart. Thus endowed, and not deficient in the passion of ambition, it is not to be wondered at that he embraced with enthusiasm the whole creed of popular and revolutionary principles. He was one of the most daring opponents of the monster Robespierre, and consequently soon became proscribed, in conjunction with Roland, Vergniaud, and Condorcet; but, more fortunate than his collegues, he escaped the vigilance of the tyrant's spies, and, shortly after the decapitation of the latter, was once more returned a member of the legislative assembly. In reward for his services and patriotic virtue, the government named him consul to Palermo; and, much pleased with the appointment, he prepared for his journey to Italy. 'An illusion so sweet,' observes his biographer, 'did not continue long: his last hour was arrived; he died at Paris, in the month of Thermidor, in the year 5 (1799), leaving to his disconsolate widow, for her total inheritance, an infant tenderly beloved, and a poverty which he highly honoured.' The same carelessness respecting dates, which we have had occasion to notice in the foregoing biography, is observable in the present; for here the age of the deceased is not specified, and we are left to collect it from collateral circumstances alone.

The subject of Prizes constitutes the next article in the history of the class.

M. Allent has been fortunate enough to obtain that proposed in the last volume upon the question, 'What has been, and what may yet be, the influence of painting upon the manners and government of a free people?' To the two following, proposed in the year 5, and meant for decision in the present or 7th year (1801), no satisfactory answer has been returned, and they are again proposed, therefore, for the year 8: 'To investigate the means of producing among us a new activity in the study of the Greek and Latin languages;' and, 'What are the causes

of the perfection of ancient sculpture? and what the means of acquiring such perfection?' To this article is subjoined a table of the prizes distributed by the Institute at its general sitting, 5th Messidor, year 5, to artists who, in the opinion of the class of Literature and Polite Arts, have merited rewards for projecting, according to the propositions of the government, plans for embellishing the squares of Paris. Of those architects eight were deemed worthy of remuneration. The names of the architects follow who, in the opinion of the Institute, have merited the prizes of painting, sculpture, and architecture, proposed in the year 5: they consist of twelve; and it is creditable to the taste of the rising generation, that many of these prizes are decreed to pupils in their respective professions. Such of these who have obtained what are denominated *chief* prizes are to be still further rewarded, by being sent to Italy to prosecute their studies at the expense of the republic. The catalogue of the books and manuscripts presented to the class follow, in which we perceive nothing very valuable. They consist of about sixty articles, all of them in French, excepting an Ode, in German, on the triumphant Death of General Hoche, by G. J. Schiller, and two articles in Spanish. Among the French versions presented we perceive a translation of Mr. Harris's Hermes, by M. Thurot.

We proceed to the Memoirs; of which the first is 'On the Conjunction of Men of Letters and Artists in the French Institute, and on the Spirit which ought to animate them. By M. Mongez.'

Arts and manufactures, it is well known, were but little encouraged under the monarchical government of France; and even Lewis the Great, who prided himself on being regarded as the general patron of science, seems to have conceived that it would have been a degradation of his dignity to have fostered, by his immediate superintendance, the two former pursuits. In this respect, the French republic may boast of an improvement upon the French monarchy; and the National Institute, which embraces every branch of manual as well as mental occupation, exhibits a more enlarged and dignified philosophy than its predecessor, the Royal Academy. In the paper before us, M. Mongez, in neat and perspicuous language, points out many of the advantages likely to result from the present constitution of the class of Literature and Polite Arts, to whose control the operations of arts, in conjunction with letters, are more immediately submitted; and pays a due compliment to many ancient and modern poets, painters, sculptors, and architects.

'II. The Great Family united, an Allegory. By M. Collin Harleville.'

This allegory is written in heroic verse:—Genius unites him-

self to the Human Soul; and the offspring of this connexion are Memory, Reason, Imagination. From the exercise of these personified faculties are produced Metaphysics, System, Erudition, Philosophy, Logic, Common Sense, Manners, Taste, Music, Painting, Sculpture, and Morals. These compose the *great family* referred to in the title. Each at first pursues his own powers, isolated and alone, and consequently often interferes with those of his brothers or sisters, and engenders no small portion of domestic discord. Genius, alarmed at the prospect of danger, convenes them in his ancient and sublime temple, harangues them upon the mischiefs which must necessarily result from such a want of harmony, and points out the infinite advantages which will result to mankind from an unanimous concentration of their powers.

'Inséparable alors de la Philosophie,
La Science, du Goût formant les nourrissons,
Recevra d'eux, pour prix de ses doctes leçons,
Ce charme qui lui manque, et qu'ils ont en partage.
L'un par l'autre, en un mot, vous vaudrez d'avantage,
Et la gloire d'un seul rejaillira sur tous.'

The harangue closes with a wish tending towards a point we had already anticipated. 'May the world,' says Genius, 'ravished by so lovely a spectacle, for ever bless you under the name of SCIENCES!—May an Institute——But here tenderness and joy interrupted the thread of his discourse.'

'Que le monde, ravi d'un spectacle si doux,
Riche, heureux de vos dons, de vos expériences,
Vous bénisse à jamais sous le nom de Sciences!
Enfin qu'un Institut——Ici, de son discours
La tendresse et la joie interrompent le cours.'

The poetry is fluent and easy, but not possessed of merit enough to stimulate us to the labour of a metrical version of the passages we have quoted. The family, enchanted by the advice given, embrace each other; and are surprised that they could have existed so long without mutual affection. From this moment Arts and Sciences become inseparable: but our allegorist indulges in a licence which true *poets* will scarcely, we think, admit to be *poetic*, when he asserts that even *Algebra* and *Poetry* are, in consequence, approximating towards a union:——

'Algèbre et Poésie enfin se rapprocherent.'

It should seem, from this declaration, that Clairaut or Bernouilli have a chance of being speedily re-edited in French verse.

'III. Report made in the Name of a Commission appointed

by the Classes of Moral and Political Sciences, and of Literature and Polite Arts, by A. G. Camus, on the Continuation of the Collection of the Historians of France, and on that of Charters and Diplomas.'

The National Institute having been charged, by article 298 of the Constitutional Act, to collect discoveries, and to advance the perfection of arts and sciences; and, by a law of the 3d Brumaire, year 4, to promote scientific and literary works which may have for their object the general utility and glory of the republic; it was proposed, in one of its sittings, that three grand literary collections should be continued; viz. that of *the Historians of France*, that of *Charters and Diplomas*, and that of *Ordonnances*. The commission specified in the title was in consequence appointed; and M. Camus, in the paper before us, offers the result of its labours, so far as they relate to the two collections of historians and diplomas; the report upon the third, or that of ordonnances, being referred to his collegue, M. de Salles. These are all of them most voluminous works; but, when completed, should they ever be, will be found highly useful, as references, to a knowledge of French history. The first was commenced in the sixteenth century, by Peter Pithou, whose plan was considerably enlarged by Andrew Duchesne. It was continued by Daguesseau, Denys de Sainte-Marthe, Bouquet, and his successors; till at length the thirteen volumes by Clément made their appearance in 1796, extending to the reign of Lewis VII., towards the end of the twelfth century. The commission propose, that this collection shall be successively continued, either to the year 1324, the æra of the chronicle of Froissart, or to that of Francis I., when the art of printing was first introduced. Clement is dead; but M. Brial, his collegue in the work, is still alive, and he is engaged to prosecute it upon a salary of 4000 francs. The collection of charters and diplomas was commenced by M. Secousse, in 1746. That antiquary is also dead; as is, moreover, his collegue, M. Sainte-Palaye: but M. la Porte du Theil is still in being, who was concerned in the same undertaking, and is now to continue his office on a salary of 2000 francs. This work is to comprehend all letters, from official or other characters, tending to elucidate any fact or event relative to the history of France, from whatever quarters they may be procured. The collection of edicts or ordonnances will be not dissimilar to, but more comprehensive than, our own *Rymer's Acts*; and the commission mean to establish another collection of papers relative to the Croisades.

---

We now hasten to the class of Physics and Mathematics.

X. The article which succeeds M. Sabatier's description of

the fracture of the sternum is a very elaborate and valuable one, by M. de la Place, 'on the Secular Equations of the Motions of the Moon, of its Apogee and Nodes.'

This is prefaced by some reflexions on the lunar theory. Our author prefers that of d'Alembert; but the whole subject is too intricate to be presented with advantage in a short abstract.

XI. The next memoir is 'on the Comparison and Difference between Strontian and Barytes. By MM. Fourcroy and Vauquelin.'

These chemists formerly supposed strontian and barytes to be the same substance, or differing very slightly. On a farther examination, however, from the experiments detailed in the present article, they think that the differences are, on the whole, more striking than the resemblances, and that these earths should be considered as essentially distinct. 'If strontian resemble barytes,' they add, 'in its taste, form, crystallisations, as well as in many of its saline combinations, it is still more unlike, by its want of fusibility in the flame of the blow-pipe, its more difficult solubility, by the properties of the greater number of its saline compounds, and particularly by the order of its attractions, which places it below barytes and fixed alkalies, and immediately before lime.' It is however remarkable, that, according to M. Pelletier, barytes should be a violent poison, while strontian is harmless.

'XII. Observations on the Nature and Treatment of the Autumnal Fevers in France, which have been, and still are, fatal in La Vendée. By M. Portal.'

This article contains a very clear and judicious account of a fatal autumnal epidemic, where the liver chiefly, and perhaps primarily, suffered. Several dissections are added; and it was found, in general, that the liver, the spleen, and the epiploön, were principally affected. All the venous system was loaded with blood of the blackest hue, and the arterial system was comparatively empty. The intestines were filled with a black filamentous substance. M. Portal is concise in his pathological disquisition; but it is evident, that, during the rainy autumn, and in that marshy region, the air was crowded with an unusual proportion of hydrogen, which destroyed the muscular activity of the whole system, and particularly of the arterial. The veins were consequently turgid; the blood, from want of oxygen, lost its florid hue; the bile assumed a green cast; and, from its unusual stimulus, excited often inordinate and unnatural cravings. Our author gave frequent slight emetics, and very mild or gentle purgatives. Calomel might perhaps have been more useful. He applied leeches to the hæmorrhoïdal veins, as branches, he observes, of the *vena portæ*—a singular error, which could scarcely have been expected from an anatomist so able.

'XIII. Memoir on the total Eclipse which was observed the 12th of May 1706, in the Morning. By Jerome Lalande.'

It is extraordinary that there have been only three total eclipses accurately visible. The results of those of 1715 and 1724 have been already published by our author. This of 1706 was observed more generally, because its umbra traversed Spain, Provence, Switzerland, and Germany.

'XIV. Memoir on the Means of converting continued Circular Motions into alternate Rectilineal Motions, whose Progresses and Returns (*Allées et Venues*) shall be arbitrary. By M. Porny.'

'XV. A new Geometrical Theorem, in which are assigned Portions of an Hemispherical Arch, whose Solidity admits of being expressed by an Algebraïc Formula. By M. Charles Bossut.'

These memoirs cannot be satisfactorily analysed.

'XVI. Observations on the Complication of the Small-Pox with Herpetic Eruptions, and on the Continuation of Mercurial Preparations through the whole Course of the Disease. By M. Dessartz.'

We were somewhat surprised, in the commencement, to find the author expressing astonishment that the English practice of giving mercurials in small-pox was not more generally followed on the continent. In reality, this is not at present the usual practice; nor, in the mode adopted by baron Dimsdale, could it have done essential service. Indeed, in a late work, a German physician, M. Wœnsel, has endeavoured to prove that mercury has almost a specific anti-variolous power; but this author's experiments form no part of the foundation of M. Dessartz' reasoning. He rests on four facts; viz. that, in two instances, mercury, given for the cure of herpes, did not exasperate the symptoms of variola; that, in erysipelas, the small-pox advanced without any apparent increased violence; and that, in syphilis, during a mercurial course, the symptoms were very moderate. In fact, as he observes, nature is apparently attentive to one depuration only at a time. Some modern physiologists in our own country have adopted the same idea, though they have deformed it with an absurd unscientific jargon.

'XVII. Memoir on the Employment of Cannon (Mortars) to throw Grenades in a great Number. By M. Marescot.'

The author laments, that, in the use of grenades, the enemies of France have been more successful by throwing them from mortars; and communicates the result of some trials to show the advantages of this method.

'XVIII. Experiments on the Circulation of the Sap in Trees. By M. Columo.'

This author, from a few observations, endeavours to prove

that the vessels employed in circulating the sap are those near the centre, and that large quantities of air usually accompany its evacuation. With this circulating reservoir, the buds, in his opinion, communicate, and, of course, the future branch.

'XIX. Observations on the Bites of Mad Dogs. By M. Sabatier.'

We have already had enough, and too much, on this subject. We have formerly said, and we repeat it, that not one of five hundred dogs reputed to be mad is so; and, of the bites of those really mad, a very small proportion communicate the disease to the human race. It may be easily supposed then, that every antidote must have its admirers and supporters, while each hitherto essayed has sometimes failed. This has certainly been the case with our author's plan of promoting suppuration; and he confesses it. The only secure method is excision, boldly and decisively employed, if it be ascertained that the dog was really mad.

'XX. Experiments on the two States of the Phosphat of Lime, on the Analysis of the Basis of Bone, and on the Preparation of Phosphorus. By MM. Fourcroy and Vauquelin.'

The two states to which the authors allude, in these experiments, are the phosphoric acid procured from the decomposition of bones, and that from burning of phosphorus. They supposed the difference to be owing to a little phosphat of lime remaining in the first instance; but farther inquiries convinced them of their mistake. In reality, when the earth of bones is separated by any of the mineral acids, a portion of it only is carried off; and the remainder, instead of being phosphoric acid, is an acidulous phosphat of lime. The authors have discovered many other acidulous phosphats in different bodies, which may be the subject of future remarks. Indeed the presence of phosphoric acid in different substances has not hitherto been sufficiently investigated.

'XXI. Chemical Considerations on the Effects of Mordants in dying Cottons red. By M. J. Chaptal.'

These considerations relate to the method of dying red in the Turkish manner, styled *Adrianople red*; of which we gave an account in our review of the Annals of Chemistry, where it was first published.

'XXII. Observations and Remarks on a Calf which remained dead and uncorrupted, in the Matrix of its Dam, fifteen Months after the Period of Calving.'

In consequence of some little difficulty arising from the position, the extremities, which had come into the world, retreated, the pains subsided, and the cow continued in good health. Had her feeding been good, she might have remained so. Her death was however occasioned by the pressure of this dead weight

on the intestines, in consequence of another change in its situation, which brought on inflammation and gangrene. Some similar facts from other authors are subjoined.

'XXIII. Observations on the Epigæa repens L. and a Description of a new Genus. By M. Ventenat.'

The epigæa repens has been misplaced, both in the natural and artificial systems; for Jussieu arranges it among the heaths, and Linnæus in the class and order decandria monogynia. Our author describes it particularly; and it appears not to be exclusively the production of Virginia and Canada, but to be found in the whole chain of mountains of North America, so far as Georgia, though the leaves, as may be expected, become smaller as its habitation is in a more inclement spot. The calyx is not caliculated, and the stamina of the flowers of many of the individuals are sterile. What is of great consequence also, the receptacles of the fruit are formed from the reflected borders of the valves. This circumstance excludes it from the family of the heaths. It belongs, in the system of Linnæus, to the polygamia dicœcia. The new plant is sufficiently known in England; it was brought from Botany Bay, and called, by Mr. Curtis, *goudenia*: it greatly resembles the scævola of Linnæus; it belongs to the pentandria monogynia, and to the family of the campanalaceæ; it connects very strikingly the scævola with the lobelia, and thus fixes the latter plant in that family. The corolla dries and fades long before it falls off, a constant property of the corollæ of the campanalaceæ, which leads Jussieu to suppose that which has been styled the corolla is only a coloured calyx.

'XXIV. Memoir on the Tables of Composition of the Salts, and the Means of verifying the Proportions pointed out in them, by Guyton.'

It is well known that chemists have greatly differed in their estimates of the quantity of real acids, and of alkalies, earths, and metals, in different neutrals. M. Guyton proposes a new method, and gives some examples of its application. He unites different neutral salts; and, from the decomposition which ensues, when the superior affinities produce decomposition, he estimates the quantity of acid separated, and thus brings to a new test the experiments of his predecessors. The plan appears to us however more plausible than useful: we see many difficulties in the conduct of such experiments, which must always render the conclusions uncertain.

'XXV. Observations of an Eclipse of the Sun, on the 6th Messidor, Year V, (June 24, 1797), noticed at Paris, at the Marine Observatory, formerly the Hôtel de Clugny. By M. Charles Messier.'

'XXVI. Remarks on the Operation of Lithotomy, with the concealed Bistory *(lithotomie cachée)*; and on the Opinion given

by the Academy of Surgery on this Operation, in the third Volume of their Memoirs.'

M. Sabatier regards this instrument as one of those superior inventions which reflect the highest credit on the human understanding. In England it has been superseded by the cutting gorget: but we think we recollect an instrument not very different, though in many respects superior, invented by a surgeon of Dublin, which, we believe, was never published. The report of the Academy of Surgery lies before us. It is by M. Louis, and entitled, 'A Report of Experiments made by the Academy of Surgery on different Methods of cutting for the Stone.' On the whole, the academicians appear to have thought this new instrument dangerous; and it is the object of the present article to defend it. In the present improved state of surgery in this kingdom, we need not engage either in defence of, or in opposition to, it. It is, we believe, very seldom employed; and the English surgeon will derive little improvement from our author's observations.

'XXVII. Memoir on the great Annular Eclipse of 1748. By M. Jerome Lalande.'

'XXVIII. On the Organ of Vision of the Fish called Cobite Anableps, or the Large-eyed, of Cayenne. By M. La Cépède.'

This singular fish has been supposed to have four eyes: but numerous individuals occurred in the museum ceded to France by Holland (in other words, plundered by the French army), which enabled M. La Cépède to ascertain the structure of this organ. The eye is very large, particularly above. It is divided into two parts; and in each eye there are two corneas, two irises, two pupils, and two anterior chambers for the aqueous humour; but only one crystalline, one vitreous humour, and one retina. In fact, then, there is but one organ of vision, though apparently two foci. From the structure of the eye, it seems that there can be no confusion from two objects, as the axis is so different; but were the same images to pass through each pupil, we see no more reason to suppose that the animal would have both conveyed to the sensorium, than that men are sensible of two objects because an image is formed on each retina. In fact, this fish lives chiefly in muddy places, and seldom wants the assistance of the inferior pupil.

'XXIX. The Result of many Experiments, designed to ascertain the Quantity of Action which Men can furnish by their Daily Labour, according to the different Ways in which they employ their Strength. By M. Coulumb.'

These experiments, with the calculations founded on them, we can scarcely abridge. The author's object is to determine how far a burthen, more or less great, will diminish the quantity of power which a man can exert daily. The experiments are

confined to the most common and natural motions, such, for instance, as ascending a stair-case; and he finds that a man loaded cannot exert more than one quarter of the power which he possesses without such a load. Again: a man who ascended a stair-case without any impediment could perform in this way twice as much labour in a day as another of equal strength in striking on an anvil. In these experiments the quantity of action is much less than is allowed in the common calculations of authors, as M. Coulumb considers what exertions a man can make through a whole day, while the usual calculations are taken from the exertions of a few hours. As our author has been in the habit of employing soldiers in his labours, he finds that grenadiers, on an average, will do one-third more work than common labourers; and in Martinique, where the heat is considerable, the quantity of labour is diminished one half.

'XXX. The Comet of the Year VI, (1798). By M. Messier.'

'XXXI. Memoir on the Urine of a Horse compared with that of a Man, and on many other Points of Animal Physics. By MM. Fourcroy and Vauquelin.'

Water and mucilage were by much the most copious ingredients. The salt which occurred in the largest proportion was *benzoat* of soda; but this was only in the proportion of 0.024. The carbonate of lime was 0.011; that of soda only 0.009; muriate of pot-ash 0.009. It contained no phosphat of lime, nor any traces of phosphoric acid. When it has undergone a slight fermentation, it is found to possess acetous acid and carbonate of ammonia.

The different points of physiology which the authors insist on are, the absence of the phosphoric acid in the urine of infants, and the constant appearance of phosphat of lime in milk, as if it were indispensable for the growth of bone, and wholly exhausted in this process. Another point is its proportion in the farina of wheat; for those who eat twelve ounces of this farinaceous substance take in sixty grains of phosphat of lime. The existence of phosphat of lime and pure soda in the seminal fluid, and the singular appearance of the lithic acid in the human urine only, and in no other fluid of the human body, are circumstances which may lead to future discoveries, if properly pursued.

With respect to the former analysis, our author remarks as extraordinary the appearance of the benzoïc acid in the urine of horses, and of infants only, as if they, in the earliest periods, approached more nearly the herbivorous animals. Another circumstance of importance in this inquiry is, the muddy appearance of a horse's urine soon after it is discharged. This substance is carbonate of lime, and it is the basis of the urinary

calculi in these animals. It is singular that we are thus enabled to dissolve the calculus in a horse by water acidulated with the carbonic acid, while in man this concretion is almost wholly refractory. The absence of the phosphoric acid in the urine of herbivorous animals is another circumstance of peculiar curiosity which chemistry has not yet explained; yet it may be observed, that, in the fæculent discharges of horses, there is a larger proportion of phosphat of lime than their food furnishes; so that some other salts are probably changed to phosphats. In this way, if horses escape the pains of an insoluble urinary concretion, they experience, in a greater degree than men, those of intestinal ones. These concretions, however, have been found to contain phosphats of magnesia and ammonia, rather than phosphat of lime. The calcareous earth seems to be conveyed to the bladder without the phosphoric acid, which is retained by the other earths in the intestines. There is an abundant supply of carbonic acid from the food to render the chalk soluble.

The superfluous quantity of phosphoric acid not necessary for the nutrition of the bones has also another outlet. The hoofs and the hair of horses contain phosphat of lime, and the latter in a considerable proportion. These emunctories, therefore, divert it from the kidneys; and to these may be added the perspirable matter of horses, which, after severe exercise, forms scales, consisting almost wholly of phosphat of lime and animal matter.

'XXXII. The first Memoir on some Anomalies in the Action of Affinities, particularly those which arise from Change of Temperature and the Abstraction of Caloric. By M. Guyton.'

The first part of this memoir consists of the affinities necessary to combine the hydrogen and azote of the atmosphere in the formation of nitre; but this part relates chiefly to the influence of compression to excite this union, without any experiment to prove the effects which the compression might produce.

'XXXIII. Observations on the Sublimation of Mercury in the Vacuum of the Torricellian Tube, produced by the Rays of the Sun. By M. Charles Messier.'

These experiments were made long since; and the fact is generally known, that the mercury in the barometer evaporates in the vacuum above. This, our author observes, is occasioned chiefly by the rays of the sun, in consequence of their light, not of their heat.

'XXXIV. Memoir on a blue Cloth dyed in Wool, and made from the Fleeces of a Flock of the pure Race of Spain, established at Croissy on the Seine in 1796. By M. Chanorier.'

This memoir is designed to show that the wool of the Spanish sheep does not degenerate in France, at least that it has not done so for a series of many years.

'XXXV. Observations on the Acetite of Copper *(verd de gris, verdet, &c.)*. By J. A. Chaptal.'

This memoir has been formerly noticed, on the first report of its contents, in the Annales de Chymie. The process is very simple, and consists only in applying the mock of the grape to the plates of copper. The same method is adopted in preparing white lead. We have already remarked that our author has shown the chief difference between the acetous and the acetic acid to consist in a greater proportion of carbon in the former than in the latter, a circumstance which fully explains the difference in their respective salts.

'XXXVI. Chemical Observations on the Yellow Colour extracted from Vegetables. By J. A. Chaptal.'

The yellow colour extracted from vegetable substances is generally lowered or tarnished by some extraneous substances. Our author chiefly employed the morus tinctoria L., which gives a tarnished yellow which is with difficulty rendered more vivid. It appears, on examination, that there are three distinct principles, which, when united, are dissolved by ebullition: these, in the vegetable, have an appropriate colour and particular properties, essentially different from those properties which belong to the constituent principles when separated. The first of these is resinous, the second the tannin, and the third extractive matter. The colour from the first and second of these principles is very bright, but from the third the most brilliant: it is therefore necessary to extract the tannin previous to the operation. This, it is known, can only be done by the addition of gelatin.

We thus conclude our analysis of the second volume of the class of Physics and Mathematics; and were we to add any general opinion of its collection, it would not be highly in its favour. On a comparison with the volumes of Memoirs of the Academy of Sciences, the value of the Memoirs of the Institute sinks very low; and we evidently see exertions to add to the bulk—experiments drawn with care from former stocks, eked out by meagre additions. The cause may lie deeper; we can only hint at it: but if the former academicians were pensioned, if the present communications be voluntary, and if the *gens de lettres* in France, as formerly, depend chiefly on stipends, the reasons of the inferiority may be easily understood. If the facts be not such, we shall be happy to own our error; if they be so, they ought in some way to be remedied. In the moment of writing this, we find the celebrated geologist, Dolomieu, forming a connexion with a bookseller. We have also just received the three an-

nual volumes for the past year, and shall communicate our account of them in the next Appendix.

---

ART. II.—*Voyage dans la Haute Pennsylvanie, et dans l'Etat de New-York, &c.* Paris. 1801.

*Travels in Upper Pennsylvania, and in the State of New-York, by an adopted Member of the Oneida Nation. Translated and published by the Author of the Letters of an American Farmer.* 3 *Vols.* 8*vo.* Imported by De Boffe.

AMONG the various publications circulated with the design of enticing the industrious European to America by a splendid but delusive picture of the luxuries and blessings of the trans-atlantic continent, the Letters of the American Farmer have been peculiarly conspicuous, though their flattering veil has been long since drawn aside. From such a source, every account of America is of course suspicious; for the disguise of a translator is an ineffectual concealment. Indeed were no other circumstance to be adduced in evidence, the flimsy narrative of the wreck of the 'Morning Star,' and the concealment of the English original, are sufficient to show to an experienced eye, that deception is the basis of the present work. In fact, the volumes before us are from the same mint, which has repeatedly issued productions of momentary currency, but which have at last been found counterfeit. When, however, we have said so much of the design of the work, we must acknowledge that many of the descriptions are interesting, and some even faithful. We proceed with the author in his pleasurable and distressing scenes; and, though he do not greatly add to our information respecting the American continent, and its present situation, he often entertains us with a more detailed narrative, with more particular, perhaps more appropriate, descriptions than other travelers have offered. As to the merit of the work, we shall add two statements, supposed to have been given by two of the writer's friends, to whom these volumes were submitted. These, however, like many other pages, are at least *embellished,* if not fictitious. The following are the remarks of the first party.

'Scarcely escaped from the confusion and the horrors of one of the most astonishing revolutions which has ever drenched this earth with blood; still agitated and terrified by the remembrance of those sentences of banishment and disgrace, from which the happy genius and the courage of a young man of thirty-one years have miraculously delivered us; like the mariner, who, from the harbour which has sheltered him, con-

templates with a mixture of terror and gratitude the rocks which he has happily avoided, *what interest can we take in the progress of the affairs of a country so distant?* in the aggrandisement of a nation, who, more happy than ourselves, has passed from servitude to independence, without experiencing the bloody fury of anarchy? Of what consequence to us is the immensity of their lakes, the height of their cataracts, the adventures of some obscure colonists, or the metaphorical harangues of their natives?

'To read with pleasure, we must enjoy ease and repose; above all, that tranquillity of mind which the blessings of a good government and peace can alone procure. Let us wait then, till this new sun, which has just risen, shall have attained his meridian height; till the Washington of France shall have displayed, in his administration, the talents so conspicuous at the head of his armies. Who can say what he may be permitted, at some future period, to accomplish, in order to repair so many disasters, and to heal so many wounds?

'In this interval, you will be employed in correcting the numerous errors with which your translation swarms, in expunging many chapters which have not experienced the author's best cares, and rendering the notes what they ought to be, simple and concise explanations, not episodes and narratives. You should remember, that readers are, in general, severe judges, more ready to blame the faults of a work, than to commend its beauties; and that, like the soft breathings of the zephyr, public approbation is scarcely heard; while the voice of censure, like the pealings of thunder, is echoed and propagated to a great distance. In other respects, it appears extremely indiscreet to publish a translation of an inedited work, the original of which is neither your property, nor that of any one who has allowed you to take a copy. Wait then till you hear the fate of the author, and, in the mean time, correct and retrench.'

The advice is delicate and judicious, in the situation in which the writer has placed himself; and, by this, he seems to have designed to escape the suspicions before suggested. Other councils however prevailed; and we must, like impartial judges, attend to the reply.

'We think, on the contrary, said some other friends, that, in spite of the numerous imperfections of this work, though the translation could not have been undertaken by a more experienced hand than your own, notwithstanding that some chapters are lost and illegible, what remains will be favourably received by the public, as it contains numerous details, as well as things equally curious and interesting: and at what happier æra can your work appear, than at that of the return of tranquillity, justice, and true liberty, after years expended in the

midst of the violent agitations, the convulsive storms, and the volcanic commotions of the revolution?

'To efface from their imaginations the gloomy and mournful impressions occasioned by that long and bloody tragedy, men wish to turn their eyes on representations at once instructive, agreeable, and consolatory. Can there be any more suitable to the present dispositions, than those of the civil happiness and the prosperity of a rising nation, which, like ourselves, has attained its liberty by victory, and, since that æra, has employed it so wisely,—than those of the early labours of families annually spreading over the new and fertile soil of the United States,—in a word, than those which relate to the form and spirit of a paternal government, to which, in many states, the colonists pay no other tax than that of affection and gratitude?'

Such are the political impressions which the author chuses to enforce in every part, and which are scattered in the advice of his friends, supposed either to approve or disapprove of his publication. His language falls so readily into English, that we can almost suspect him to be an Englishman. This might be a proof of the supposed original, but that the preface, from which we have copied, is not a part of the work recovered from the wreck of the 'Morning Star.'

Of the Travels, an analysis would not be interesting. We have some narratives respecting the natives and their traditions, which are amusing; but we own, that we wish to see them better authenticated. The happiness of the farmers is however the leading subject; and the advantages of rivers, of good roads, and of fertile pastures, which either exist or are promised, perpetually recur. Though the title speaks only of *Upper* Pennsylvania, our author travels into Upper Canada, and describes the Fall of Niagara. In short, nothing that has been already well described is omitted; nothing, not formerly noticed, is introduced.

As we must seek, therefore, a specimen in the regions of fancy, we shall select a narrative that greatly interested us. Yet we own it seems, from several little circumstances, a fabricated tale. Those who think it so will be pleased with the author's ingenuity: others, 'deceived by the cunning of the scene,' may experience different feelings. At times, perhaps, every one will be agreeably impressed. The passage occurs in the second volume, where the two friends are lost in an American forest. Their object was the search of some trees in which the bees deposited their honey; and they wandered from the right way, in consequence of their passing a ravine, instead of proceeding upward on its borders. They had been hitherto directed, as usual in American forests, by marks on the trees.

'We had advanced some way in the wood, when Herman, stopping suddenly, cried out, "And where are our trees? We have wandered from the path, and are lost!" Like a flash of lightning, which discovers to the traveler the precipice to which he had been decoyed by the darkness, these words, by suddenly opening my eyes, made me see the danger into which our carelessness had plunged us.—"Let us return," said I; "and as in our progress westward the mossy sides of the trees were on our left, by keeping them on the right we shall find the ravine, whose direction must be north and south;" but not having, like the natives, the faculty of tracing our own steps by the removal of the leaves, which were in motion, we were deceived in our hopes. Night surprised us before we had made any discovery which could contribute to our tranquillity. It is in the woods as at sea; one fault draws on another; the farther we advance to find our way, the more distant are we from it. This was our situation.

'Though seven months have elapsed since this melancholy incident, I still recal its frightful images, as on the day when we escaped from the wood. Time will never efface from my mind the painful remembrance of the moment when I contemplated death through the horrors of despair and famine. On the approach of night, I was collecting some dry wood to light a fire, when M. Herman, who was at a little distance, cried out, "What can we do? What will become of us?"—"What has now happened?" said I.—"I have lost the flint, with which I was intrusted, probably in the fall which I had in crossing the ravine. Cannot we find one in these woods?"—"It is not very probable," replied I; "besides, we could scarcely see it. It has been often said that one misfortune seldom comes alone. Give me the steel, and I will try it on the first stone that I meet." Our attempts were unsuccessful.—"What," said my companion, in a plaintive tone, "must we be exposed to the fury of the wolves and panthers for want of a flint, when there are so many useless ones on the earth? Of every possible combination of misfortune, this seems the most distressing. On what trifles does human happiness depend! Millions are consumed in the repairs of the high-ways; one would now console us, and recall our courage, by the assistance of fire and light."

'"Don't let us despair," said I, "for one night passed without fire at the foot of a tree: we are lost if we despair. Give me your shoes *, and I will place them with mine, at some distance: with this simple rampart we shall pass the night quietly, and to-morrow we will escape from this labyrinth."

'Weakened by want and fatigue, overwhelmed with re-

* Shoes are said to retain the smell of the body longer than the other clothes; and beasts, except when very hungry, will not attack men.

flexions and apprehensions, how long this night seemed! Our eyes were not closed *for an instant*: the howlings of the wolves, at a greater or less distance; the shrill cries of the owl and night-eagle, eagerly repeated by the echoes of the forests; the sound, even the suspicion, of the slightest motion, and the whisperings of the breeze, raised a thousand apprehensions in the restless mind of my companion: his imagination, exercising all its powers in the creation of the most distressing presages, banished sleep from his weary lids. Whence arises this influence of darkness on the minds of the greater number of mankind?

'After endeavouring to recollect the little that I knew of the geography of this part of the mountains, the course of the ravine, as well as the direction of our journey after we had passed it, I resolved at break of day to ascend a large tree, to observe at what point the sun rose. I mentioned this design to M. Herman, who replied, with accents of anger, "You have drawn me into this difficulty, by inducing me to hunt after bees."—"Well," said I, "am not I in equal difficulties? Must bitter animosity supply the place of confidence and friendship?" Such are mankind: circumstances alone influence their mutual relations.

'This tedious night at length ended. When day appeared, I executed my design; and having ascertained the point where the sun rose, convinced that our proper route was to the north-east, we followed that direction. We should probably have found the ravine, if we had not been obliged to pass many considerable valleys, covered with high bushes, among which we again went astray. How could we find our way through a forest where every new object so perfectly resembled that which we had left? On what then can be founded those marks, and the knowledge, necessary to conduct a traveler in these solitary and unknown woods? Is it the result of study or inspiration? How do the natives manage? In relating to my companion what I had heard relative to the astonishing sagacity of animals who never lose their way in these woods, "We should blush," he observed, "that two men, with their reason and judgement, have less power at this moment to escape from their difficulties, than two cows assisted by their instinct only."

'We traveled, or rather wandered, the whole day, without finding the slightest vestige of any plantation, or the ravine, without meeting with a single fruit, or a single berry, to allay the hunger which preyed on our stomachs. How often, in the long day's journey, did we listen to the slightest noise, without being able to distinguish any thing but the mournful sounds of forest birds, and the vague, indistinct murmur, which, in happier moments, would have appeared like the voice of nature! How often did we call to each other, heard only by distant echoes,

whose reverberations made us leap, thinking them the voices of men! Why does time, which, in the ordinary periods of life, passes like the shadow of the sun, without a sensible progress, shorten the moments of happiness, and prolong those of misery, to make us feel more poignantly all its bitterness? In the midst of the torments of hunger, of irritation and despair, this second, this most painful of nights, passed; and such were the gloomy auspices with which we commenced the third day of our fatal excursion.

'We spoke no more: absorbed and plunged in extreme consternation and weakness, we walked slowly to what we concluded was the north-east; when M. Herman suddenly exclaimed: "We are not far from a plantation! we are preserved! See the leaves recently disturbed, which is most probably owing to swine."—"Would to God it were," said I; "but it is only from a flock of wild turkeys, with which the forests are filled." Had we brought our guns, one of these beautiful birds would have supplied us for a long time, since nature has not produced a single fruit on which we can support ourselves.

'As if the most gloomy despair, the bitter and inexpressible tortures of hunger, had not been sufficient to fill up the measure of our woes, about the middle of the day madness seised us. If we opened our mouths, it was only to utter the wildest abuse, and the most bitter reproaches, relative to this journey. If our eyes turned towards each other, though sunk and weakened, they sparkled with the fire of anger and indignation. These passions, which till this moment we had never known, were suddenly displayed with the greatest violence, as if some evil genius had at once inspired them. No—the germs which nature had implanted waited only for the distressing circumstances in which we were placed, for their evolution. Had we, at that moment, arms, or indeed strength to have seised each other, mad as we were, we should have become our mutual executioners.

'To these tempests, which I recal with dread and shame, succeeded, towards the evening, the calm of extreme debility and sinking. Sitting at the foot of a tree, we were seised with an inflammation of the bowels, which excited a constant thirst. This devouring fever, this insupportable want, to which human nature is subject, was added to the perpetual irritation of extreme inanition. Happily a change of wind brought us the sound of a neighbouring cataract, which we followed, leaning from time to time against the trees, and reached at night the banks of a river, which I have since found to have been one of the branches of the Alleguipy, where we extinguished the burning heat of our thirst.

'Herman passed nearly the whole of the third night in the most

frightful delirium. He cursed the day of his birth, his passage across the ocean, and, above all, his companion, whose last agonies he was anxious to witness before he died. But, though this transport of fever and despair seemed to give him new strength, I feared that he could not survive so violent a paroxysm. The great quantity of water that I had drunk produced an opposite effect; it calmed the fever and the acute pain, but excited a copious and a cold sweat. My faculties were more blunted, more weakened, than those of my unfortunate companion; perhaps I suffered less, though equally unhappy. My eyes closed; and the last idea that I can recollect is the state of resignation which I felt, and the sensation of a rapid decline of life. Yet I regretted that I must die alone, abandoned, at the foot of a tree; and felt extreme horror at the idea of my body being devoured by carnivorous animals.

'Nature, however, watched over our preservation; the cessation of thought was the commencement of sleep. We believed we slept some hours; and, in spite of every probability, or our own gloomy presages, we saw the fourth day; but, like the funereal torch, it served only to augment the horror of our situation, in showing us the gates of the tomb at which we were almost arrived. Our eyes, covered with the clouds of death, instead of real objects saw only imaginary ones, agitated and trembling like ourselves. Sometimes the shades with which we were surrounded, sometimes the clouds with which we were environed, were suddenly dispersed by trembling and transitory rays; sometimes they presented phantoms, which, after flitting near us, swept the surface of the earth, and, rising above the bushes, perched on the trees over our heads. Sometimes our eyes, though almost closed, saw still a transparent joy, without being able to distinguish any thing. Such were the last images which the imagination of two beings, sinking in the shades of death, had raised.

'Sometimes I was still able to say to my companion, while dragging slowly to the banks of the river: "Occasionally, when misfortune is at the height, some soothings, some lights of hope, arise. Have you never observed, at sea, these consoling intermissions, even during the most frightful tempests? We are come to the highest degree of misery; but let us still hope." —"How can you pronounce that word?" said he, with the accent and gesture of a madman. "Despair and death have dissipated even these last illusions. Since thou art coward enough, hope for thyself; I will immediately throw myself into this river, at the bottom of which, peace and a tranquil sleep await me. Who would longer endure these biting pains, since not twenty paces intervene between the middle of hell and the haven of repose?"

'"Let us live over this day," said I, "if it be possible; let us drink some more water; and, in the evening, if no favourable sign occurs, we will leap into it together."—"For a person who suffers like me," said he, "the evening is a hundred leagues distant. But, well! since you are become my enemy, and will persuade me to live still some hours, kill your dog, and give me a part to appease my hunger. If you are barbarous enough to refuse this gift, be generous enough to let me die this instant." The idea of killing the animal, an idea which necessities so urgent had not yet excited, recalled me at once to hope and life. So far from attending to the voice of affection and remorse in favour of the dog as much weakened and as languishing as ourselves, I was seised with a feeling still more violent than anger: it was the irritation of madness. I shuddered; my trembling hands sought with eagerness the knife that I had let fall among the leaves; when my companion, re-animated by the prospect of satisfying his hunger, accused me of slowness, and overwhelmed me with fresh abuse. As I approached my resigned victim, a ray, emanating ftom the invisible power which regulates our destinies, led me to observe a bunch of ground-nuts. "We are preserved!" I exclaimed, "we are preserved! The ground on which we have passed the night, and on which we expected to die, contains what will give us life, since, where one of these plants grows, there are millions; and we were ignorant of it."—"Merciful God!" he exclaimed in his turn, "are you not deceiving me?" At that moment I offered him the first root that I had drawn up; but we were so weak, that it required many efforts, and much labour, to obtain a sufficient quantity to satisfy our most urgent necessities. Could we have lighted a fire, what a sumptuous repast should we have made!

'But how can I express the effects which the certainty of procuring a still greater quantity made on our minds? how paint the new and exquisite feeling, the inexpressible ecstasy, which relieved our diminished strength, raised our drooping spirits, and recalled the delicious, the divine consolation of hope? How can I explain what I so poignantly felt? the sudden passage from extreme want to the possession of some aliments, collected by the feeble ray of hope; the transition from a state of despair to one of tranquillity; from the banks of the gloomy Cocytus to the realms of life.'

They soon hear the tinkling of bells attached to the necks of cattle, and discover a plantation, at which all their wants are relieved. The narrative is long, but it is interesting; and the reader will soon perceive the many traits which lead us, on the whole, to doubt the authenticity of the relation. If these wanderings really happened, we must say, that we never heard,

in the same circumstances, of less active ingenuity, or fewer exertions to preserve life: we had almost added, that they did not deserve their escape.

The account of the Fall of Niagara is very full, but we find nothing added to the features of the picture. The Indian tradition of the visit of their Manitou to this globe is curious, if, as we suspect, it be not somewhat embellished. The narration of the manners, the ingenuity, and the inventions of the colonists, many of which are certainly exaggerated, will at least entertain the reader. On the whole, these volumes may be read with interest and pleasure. They are adorned with several elegant plates, and very correct maps; but they scarcely merit a translation into our language. The map of the isthmus between the lakes Erie and Ontario is peculiarly correct and valuable; though the degrees of longitude are omitted, and the shape of Grand Isle is somewhat too rounded.

---

ART. III.—*Du Calcul des Dérivations.* Strasbourg.

*The Doctrine of Derivations. By L. F. A. Arbogast, of the French National Institute.* 4*to.* Imported by De Boffe.

THE doctrine of fluxions presents many difficulties to the mathematicians on the continent; and, to relieve us from them, they are plunging headlong into the abyss of abstract quantities, where no eye can follow them, and their speculations tend little to any public utility. Great things have been promised to us by the former doctrine; but these are now to be obtained, in a tenfold degree, by the doctrine of derivations, of whose utility and comprehensibility we may judge from the author's account, that it is a doctrine comprehending the theory of series, of which the method of fluxions is only a particular case. It is to shorten laborious operations, and facilitate our researches into the most complicated subject, by its processes and formulæ: it connects together several branches of analysis, and conducts with ease, and directly, to many new results, or to old results under a new form. As it considers quantities generally in their derivation one from another, it is called the doctrine of derivations. Thus the book opens with an explanation of the method in its simplest case; whence our readers may deduce an opinion of the extent to which it is pursued in a quarto volume of 400 pages, of which nearly every page is filled with the most complicated algebraïcal terms, and scarcely an instance is given to make the subject clear to one who is not a very profound mathematician.

'Let $F(a+x)$ be a function of the binomial $a+x$. This

function, it is well known, may be developed in a series, proceeding according to the powers of $x$, in this manner:

$$F(a+x)=a+bx+\frac{c}{1.2}+x^2\frac{d}{1.2.3}x^3+\frac{e}{1.2.3.4}x^4+\text{-----}.$$

'It is known also that $a$ is equal to $Fa$, that $b$ is derived from $a$ or $Fa$, $c$ from $b$, $d$ from $c$, and so on by the same law; so that if the method of deriving $b$ from $a$ or $Fa$ were known, we should be able to derive $c$ from $b$, $d$ from $c$, and so on.

'Let D be the operation necessary to deduce $b$ from $Fa$: it is clear, then, that $b$ is equal to $DFa$, $c$ to $DDFa$ or $D^2Fa$, $d$ to $D^3Fa$, and so on. Hence the series given above may be thus expressed:

$$F(a+x)=Fa+DFax+\frac{D^2Fa}{1.2}x^2+\frac{D^3Fa\,x^3}{1.2.3.},\ \&c.$$

'It is also known, by the method of differentials, that if $a$ be made variable, then $DFa=\frac{dFa}{da}$, $D^2Fa=\frac{d^2Fa}{da^2}$, $D^3Fa=\frac{d^3Fa}{da^3}$; and as $da$ may be either constant or variable by making $da=1$, we shall have $DFa=dFa$, $D^2Fa=d^2Fa$, $D^3Fa=d^3Fa$, and so on, and the rule of derivations agrees with those of the differentials.

'Thus let $F(a+x)=\log.\ a+x$. Then $Fa=\log.\ a$; whence if $da=1$, $da^2=0$, and by derivation we have
$D\log.\ a=a^{-1}.\ da=a^{-1}$, $D^2\log.\ a=Da^{-1}=-1.a^{-2}$, $D^3\log.\ a=D(-1.a^{-2})=1.2.a^{-3}$, $D^4\log.\ a=D(1.2.a^{-3})=-1.2.3.a^{-4}$, &c. Therefore $\log.\ (a+x)=\log.\ a+\frac{x}{a}-\frac{x^2}{2a^2}+\frac{x^3}{3a^3}-\text{----}.$'

In the same manner the binomial theorem may be proved; for in this case, since $DFa=na^{n-1}$, $D^2Fa=n.\ n-1.\ a^{n-2}$, and $D^3Fa=n.\ n-1.\ n-2.\ a^{n-3}$. Therefore $F(a+x)$ or $\overline{a+x}^n=a^n+n.a^{n-1}x+n.\frac{n-1}{2}a^{n-2}x^2+n.\frac{n-1}{2}.\frac{n-2}{3}ax^3$.

Here the difference between the method of derivations and differentials is, that $a$ is taken for the variable quantity. From binomials, the author carries us in the same manner to polynomials; and the modes of expansion, as far as we can understand them, seem to be very ingenious.

Derivation, then, is the operation by which a derived quantity is deduced from that which preceded it, or from its fluction. The method of derivations, in general, consists in finding the law which connects the members of a series each to the

preceding, and in using this law as a mean to pass from one derived term to its successor. New signs, of course, are necessary in this new method; and, as Leibnitz had consecrated the letter *d* to his differential, the capital D is assumed by our author for his mark of derivation. In the first part of the work the functions of polynomial quantities are investigated, and this general problem is solved. Any function of one or several polynomials, simple, double, or triple, being given to develop the function in a series either simple, double, or triple, by deriving the successive terms developed one from the other, and in every case to find immediately any term whatsoever developed without making it depend on any of the other terms. Having laid down the foundations of the doctrine in three articles, the fourth contains the application of the methods and forms of derivation to express the general term of recurring series, whose scale of relation is known. The fifth article applies the method of derivations to the transformation of series. Thus, in the first problem, it is proposed to transform a given series,

$$A+Bx+Cx^2+Dx^3+Ex^4+Fx^5+\text{----},$$

into another of this form,

$$a+bx\,(\beta+\gamma x+\delta x^2+\text{, \&c.})^m+cx^2\,(\beta+\gamma x+\delta x^2+\text{, \&c.})^{2m}$$
$$+dx^3\,(\beta+\gamma x+\delta x^2+\text{, \&c.})^{3m}+\text{-----},$$

in which A, B, C, &c. $\beta$, $\gamma$, $\delta$, &c. and also $m$, are any quantities whatsoever independently of each other, and are even arbitrary. The sixth article shows the use of derivations in the method of differentials, or, as we term it, the method of fluxions. The seventh article applies the method of derivations to other branches of the theory of series.

The mathematician who has been accustomed to the works of Euler, Waring, Lagrange, Lacroix, and Laplace, may appreciate the labour, industry, and ingenuity, employed in this volume; but having given a specimen of the method in the simplest case, they who are contented with the inferior parts of science will easily conceive that we could not enter into a detail of any of the higher processes without encroaching too much on our limits, and filling our pages with a complication of abstruse terms, not to be rendered familiar to the greater part even of our mathematical readers. To the higher mathematicians of Cambridge we recommend the work, as deserving a place in their studies: it may be a stimulus to their exertions, and encourage them to give a proof to their collegues on the continent, that their labours are neither unknown, nor without due appreciation, on this side of the water.

The laborious author of this work proposes also to give the world his theory of fluxions, reduced to the rigor and evi-

dence of ordinary algebra. The work is still in manuscript; but the principles on which it is founded are thus detailed.

I. 'If in an equation there be quantities depending on a variable quantity, and others not depending on it, but remaining always the same, and if the equation be true in every value of the variable quantity, then the independent terms, and the terms depending on the variable quantities, will form each a separate equation.'

This principle, we may observe, is the same as that adopted by Mr. Frend in the Second Part of his Algebra, for finding the *maxima* and *minima* of algebraïcal terms which form the unknown side of equations having more than one root; and thus the difficulties attending the evanescence of increments, or the subtle introduction of velocity, are avoided. As he has also hinted, in his preface, that this principle may be carried to a much greater extent, it will be curious to see how far these two writers, without probably knowing the least of each other's studies, agree in their speculations.

II. 'If in any function of $x$, in the place of $x$, be substituted $x+\Delta x$, and developed in a series laid down, according to the powers of $\Delta x$, in the following manner,

$$\varphi x + p\,\Delta x + \frac{q}{1.2}(\Delta x)^2 + \frac{r}{1.2.3}(\Delta x)^3 + \frac{s}{1.2.3.4}(\Delta x)^4 - - -,$$

the co-efficients $p$, $q$, $r$, $s$, &c. will be functions of $x$, derived one from the other, by the same law and the same process as $p$ is derived from $\varphi x$.'

III. 'Every function of $x+\Delta x$ may be developed in a series, which proceeds according to the whole powers of $\Delta x$, if $x$ be supposed to have a general value.'

IV. 'In the development of $\varphi\,(x+\Delta x)$ a finite value may be assigned to $\Delta x$, so small that any one of the terms in the series will be greater than the sum of all those that follow it.'

Here, we may observe, is an essential part of the new system adopted in the consideration of fluxions. No term, no differential, or, as we call it, fluxion, is supposed to be evanescent. If the development be stopped after a certain number of terms, the remainder are considered as having an assignable value.

V. 'If the ordinate of a curve $y'$ belonging to the abscissa $x+\Delta x$ be represented by the following equation:

$$y' = y + \frac{dy}{dx}\Delta x + \frac{d^2y}{1.2.dx^2}(\Delta x)^2 + \frac{d^3y}{1.2.3\,dx^3}\Delta x^3 +, \text{ \&c.}$$

and the ordinate $u'$ of another curve, whose equation relates to

the same line of abscissas, and contains a number of constant quantities; $n$, and the abscissa corresponding to $u'$, is $t+\Delta t$ and $\Delta t = \Delta x$; then,

$$u' = u + \frac{du}{dt}\Delta x + \frac{d^2u}{1.2.dt^2}(\Delta x)^2 + \frac{d^3u}{1.2.3.dt^3}(\Delta x)^3 + \&c.:$$

if the $n$ constants of the last curve be determined by the equations

$$u = y, \frac{du}{dt} = \frac{dy}{dx}, \frac{d^2u}{dt^2} = \frac{d^2y}{dx^2}, \&c. \frac{d^{n-1}u}{dt^{n-1}} = \frac{d^{n-1}y}{dx^{n-1}},$$

this curve, so determined, will be that whose locus approaches nearest to the locus of the first curve; so that it will be impossible for any curve of the same nature as the second curve to pass between the two curves.'

VI. 'If there be three expressions arranged according to the powers of $x$ or $\Delta x$,

$U = a + b\Delta x + c(\Delta x)^2 + d(\Delta x)^3 +$ ------

$V = a' + b'\Delta x + c'(\Delta x)^2 + d'(\Delta x)^3 +$ ------

$W = a'' + b''\Delta x + c''(\Delta x)^3 + d''(\Delta x)^3 +$ -------,

and the value of $V$ not being given, it is known to be between $U$ and $W$; that is, greater than one and less than the other; if these two last series have a certain number of their first terms equal to each other, the series $V$ will have the same number of its first terms equal to the corresponding terms of the other series. Thus if $a = a''$, $b = b''$, then $a = a'$, $b = b'$.'

Hence, says our author, the differentials of an area, or the arc of a curve, may be found with great exactness; and thus fluxions may be applied to curves, without making any thing vanish: —a circumstance in which the method of the ancient geometricians is principally distinguished from all those that have been adopted in later times.

From the specimen of the intended method of laying down the doctrine of fluxions, and the evident industry and talents of this writer, our mathematical readers will, equally with ourselves, look forward with hopes of a speedy accomplishment of the author's design. There cannot be a doubt that it will meet with patronage in France, where the sciences are now cultivated with great assiduity; and distinction in science leads to employments in which the talents of the student may be beneficial to the public. The processes will probably, in the first instance, be accompanied with the same difficulties which attend the present work; but these will be gradually softened; and, the attention of scientific men on both sides of the water being directed to the same point, the doctrine of fluxions will be soon relieved from the embarrassments in which it was left by its first inventors.

ART. IV.—*Mémoir Historique sur la Vie et les Ecrits d'Horace Bénédict de Saussure; pour servir d'Introduction à la Lecture de ses Ouvrages, par Jean Sennebier, Membre associé de l'Institut National des Sciences, &c. &c.* Geneva. 1801.

*Historic Sketch of the Life and Writings of H. B. de Saussure; serving as an Introduction to a Perusal of his Works, by J. Sennebier, associate Member of the National Institute, &c. &c.* Imported by De Boffe.

WE can scarcely express the disgust we felt at reading this eulogy. Condorcet, in the most flattering period of his successive biographical records, never wrote any thing so fulsome: nothing under the ancient *régime* differed more essentially from republican simplicity, from De Saussure himself. We had some knowledge of the historian of the Swiss mountains; we have attended him in all his progresses; we first introduced him to the acquaintance of English readers; but we did not again recognise him in his present appearance, decorated in a blaze of tinsel, which flattery has spread around him in a variety of false colouring, by which he is disguised rather than adorned.

In our journeys with De Saussure, we found him an intelligent pleasing companion; but we found him also, at times, hasty and inaccurate in his decisions; warm, though not implacable, in his resentments; occasionally without that previous knowledge which might have contributed to illustrate his inquiries. His irritability in the dispute respecting the hygrometer is indeed shortly noticed, with the tender blame with which the error of a favourite child would be treated; but every thing else is superlative. It is an ornamented representation, in which nature never speaks. What can be more distant from the feelings of friendship than the following tinsel of declamation, in the introduction?

'Geneva severely felt the magnitude of its loss when death deprived it of De Saussure. His desolate family is constantly in tears; his collegues seek the light which guided him; our society lament the loss of his advice, and the lustre with which he adorned it; science and arts complain of the loss of his extensive views, and of the progress they made under his direction. These lamentations, these tears, these regrets, mixed with my own, leave only the heart-breaking feelings which they produce; but these tears, these regrets, these recollections, these eloquent expressions of gratitude and admiration, while they honour those who feel them, are the most eloquent eulogy on their object. We never praise in this manner a man without utility and without talents: such a one disappears without being missed; and, when placed in the tomb, we forget that he has lived. But when we feel the delight we have experienced from a useful and

virtuous man during his life, if we have reason to apprehend that his place will not be soon filled, we hope that his dust will preserve some portion of the energy which he has displayed, and that the sad honours paid to him will animate those who resemble him. We can only by great examples show that virtue, labour, and glory, are inseparable.'

Who but would think, from this eulogy, that science, virtue, and ability, were totally extinct at Geneva? Who would not express surprise or indignation at being told, that Odier, that Pictet, that Sennebier himself, might, in different departments, merit an encomium equally warm? No one has been more zealous in De Saussure's praise than ourselves; no one would hear more indignantly that his memory was reflected on: but such encomiasts are his greatest enemies; and Sennebier should recollect that De Saussure was an able and diligent investigator of nature, but had no higher claims. What are his discoveries? A new hygrometer. Yet even here his merit is disputable. He ascended Mont Blanc; but Belmet preceded him: he made experiments and observations in this region; but Maupertuis did the same under the arctic circle; and this has not rescued his memory from witticism, from insult:—he corrected the volcanic mania, and added to our knowledge of nature in those alpine regions. In all these points we ourselves preceded him; but we mean not to claim any merit from these remarks: for such was the state of science, that it required only the attention to be kept alive to draw obvious conclusions from the objects around: yet we repeat, that De Saussure was a man of singular abilities, but he was not a fit subject to become the hero of a romance. We shall add a few specimens from the present biography, as well from the more exaggerated style of the writer as from paragraphs more correctly composed, containing some clear consistent views of these sublimer features of nature, collected from the Travels of the deceased. We omit the wild and inflated account of his acquisitions in chemistry and natural history;—in chemistry, which he knew imperfectly; and in mineralogy, of which he obtained a knowledge at a very late period;—and shall first of all select the following short trait.

'Spallanzani acquainted Bonnet with his discovery of the animalcules of infusions; he detailed the efforts he had made to discover the secret of their re-production. This obscure subject piqued the curiosity of De Saussure: he observed these singular beings, which would have remained unknown but for the employment of glasses of the highest powers; and he found, in 1770, that the greater number of these animals multiplied, like polypi, by division. Spallanzani thanked Bonnet for having furnished De Saussure with an opportunity of making *such a capi-*

*tal discovery*, and he was *happy to learn that there was one more naturalist of the first importance in the world.*'

What, it may be asked, is this capital discovery? What the dullest being in the universe, with a powerful lens and a great share of patience, might have attained.

We pass over De Saussure's journey to Rome, the little flirtation between him and lady Hamilton, '*sa liaison*' *avec le chevalier Hamilton*, and the '*vif intérêt que sa fille inspirait à miladi.*' We must pass over also the highly exaggerated and unscientific declamation on Vesuvius, and volcanoes in general. At this time, Sennebier ought to have known that Vesuvius had been a mountain before it was a volcano, that the heat of volcanic substances has never been considerable, and that the '*masses incalculables de laves, lancées à ces hauteurs par un gas incoërcible,*' consist only of stones of a moderate size thrown a little way into the air by expanding steam.

Some time after De Saussure experienced a stroke of palsy, he engaged in a series of experiments on the fusibility of different stones by the blow-pipe, a work which occupies the attention without any particular exertion of mind. He somewhat improved the blow-pipe, by regulating its powers and adapting a proper support, and submitting only small portions of the mineral to the trial;—circumstances so obvious as scarcely to require notice.

'De Saussure, directed by these new principles, describes a series of new observations on the degree of fusibility of different fossils, of which he forms six classes. But it is necessary to read the memoir, all the details of which are equally interesting, and particularly those designed to determine the degree of heat experienced by rock crystals, and one hundred and thirty-four minerals, subjected to these experiments and calculations. He was aware that the work was not complete; but, contemplating on its extent and its difficulties, he remarks, almost with gaiety, that if any thing were surprising, it was what he had done, not what he was unable to do. Those who reflect on his original work will soon discover the solidity of his principles, the probability of his reasonings, and the importance of their application to the progress of our knowledge, not only with respect to the fusibility of bodies, but to their particular affinities, when exposed to the highest degrees of heat. I remember, that when I expressed the great pleasure this work had given me, De Saussure replied, that he undertook it to ascertain whether his head had suffered from the palsy; but, from his success, he had reason to be contented with his exertions. *What courage! What a trial! What success!*'

Indeed, we may add that they are equal. We shall only subjoin one or two other extracts of a more favourable kind.

'De Saussure at first remarks, that the primitive mountains, those foundations of the globe which he supposed anterior to organised beings, are formed and stratified in the waters by a confused crystallisation, and not by successive depositions; because he observed granite in the clefts of a foliated rock;—and this granite must have been produced by the infiltration of a fluid which held the elements in solution, like the spar and the quartz found in the clefts of some marbles. Since there are instances, therefore, where the primitive stones are evidently produced by a solution of their elements in water and by their crystallisation, it is probable that, in other instances, their formation has been the same. Granites indeed appear in strata inclined or vertical; but it is the calcareous strata which have this arrangement; and we observe in the most elevated parts of different primitive mountains many regular and parallel strata. The granites and foliated rocks do not, however, contain any marine bodies; and we cannot suppose them annihilated by time, since they assume the hardness of stone, and since there are strata covered by silky fibres, which are always accurately pointed. We know, too, that the most ancient secondary calcareous mountains have very few marine substances; which leads me to suspect that the fluid which had dissolved the cements of these earlier mountains might have dissolved at the same time the marine bodies dissolved in the other rocks.'

This idea is in some degree new, and strictly a philosophical one. If the fluid which contributed to dissolve the quartz be connected with carbonic acid or its gas, it will receive considerable support: yet, on the other hand, a very small portion of calcareous earth is found in granite; and it appears in one kind only, probably deposited subsequently to its formation by the infiltration of water. Had the menstruum of the elements of granite dissolved also the marine bodies, the lime would be found more copiously, either pure, or supersaturated with carbonic acid. Neither circumstance has been discovered. But to proceed—

'The primitive mountains are still more remarkable by their forms. The face of mountains composed of horn-stone is flat, without any peculiarity of features; but as soon as this stone changes to quartz and feltspar (in other words, to the nature of granite), the indentations are more distinct, and the forms more decided. De Saussure ascertained that the tops and substance of the highest mountains are composed of granite. He observed it in the parts which had fallen down, and in the sides which are naked to a vast height.

'This great naturalist has seen the high chains of granite mountains formed of large laminæ, or of foliated pyramids, leaning one against the other. The internal ones are vertical;

the others incline or separate; but these stupendous folia have their planes exactly parallel to each other, and indeed to the general direction of the mountains of which they form a part. It is thus that the mountains which terminate the Valley of Chamouny on the south-east, display the granitic strata of their needles. Their vertical section may be represented by an open fan, whose horizontal sides rise gradually till the sticks become rectilinear in the middle. Seven eighths of the granite of Grimsel are divided by vertical strata; and the eighth resembles those calcareous rocks where no particular strata can be observed.'

We can no longer, however, follow his discoveries, and shall conclude with a portrait of the author himself.

'De Saussure was tall and well proportioned. His pleasing countenance conveyed very forcibly the movements of his soul; his lively and penetrating eyes showed the activity of his mind and the force of his attention. He often assumed that air of freedom which gained the confidence and secured the hearts of those with whom he was connected. Truly eloquent, he expressed himself with the greatest clearness: he could give motion and colour to his thoughts without rendering them less transparent. The warmth of his sentiments, the external conviction spread over his features, convinced, in spite of themselves, those who at first entertained different opinions. His solid and animated conversation was seductive, by the accuracy and copiousness of his ideas, as well as by the justness and spirit of his expressions. If he was firm and inflexible when reason commanded, he often yielded easily to the tastes of those with whom he constantly lived.'

---

ART. V. — *Histoire Naturelle du Genre Humain, ou Recherches sur ses principaux Fondements physiques et moraux; précedées d'un Discours sur la Nature des Êtres organiques, et sur l'ensemble de leur Physiologie. On y a joint une Dissertation sur le Sauvage d'Aveyron. Avec Figures. Par J. J. Virey.* Paris. 1801.

*Natural History of Mankind, or Researches into its general physical and moral Principles; preceded by a Discourse on the Nature of organised Beings, and on their Physiology. To which is annexed a Dissertation on the Savage of Aveyron. With Plates. By J. J. Virey.* 2 *Vols.* 8*vo.*

JOSEPH Julian Virey is, we believe, the assistant and co-adjutor of Sonnini in his new edition of the works of Buffon, to whose memory these volumes are inscribed. If, however, not the same, he is a compiler of peculiar industry, and a physiologist of no mean ability. "The proper study of mankind is man." But the author of this apophthegm was a

sectarist, or the tool of one; and, under the guise of general disquisition, was artfully propagating peculiar tenets, and of a suspicious tendency. The author before us professes himself to be no sectarist; and we cannot find that he is so in any considerable degree. His authorities are numerous, and of the greatest respectability; his inquiries extensive, and his details ample.

It may be asked, Is not the nature of man sufficiently known? Have not his various faculties been carefully investigated in many different lights? Are not the mental operations often the subjects of the most minute disquisitions? and have not the metaphysicians of later ages contended with the most logical subtility and the keenest discrimination, as to the principle whence all intellectual operations proceed? This and much more has been done; yet man has been, in many respects, imperfectly understood, and his natural history greatly neglected, notwithstanding the motto of Linnæus in his first page, '*Nosce teipsum.*' The spirit of system has interfered in this part of the subject, and facts have been distorted by views foreign to the real pursuit. Man undoubtedly stands pre-eminent in the world; but does he stand alone? and are there not, from the human race down to the lower orders of animated beings, those shades of difference which we constantly observe in every other part of the creation? By coolly and impartially examining the subject, we might, perhaps, at least approach the truth. But other views intervene. Who is the being that stands next to man? and where is the animal that connects him with the ourang-outang? The question might be answered by some, but the answer would still be objected to by others. By one class such a middle order would be denied: by another it would be contended, that the ourang-outang differs from the human being only in form. Blind indiscriminating instinct is raised to an equality with, or a superiority over, reason; and the animals whose senses are more acute, and who can provide for themselves soon after birth, are brought, in triumph, to be compared with the varied excellence of man. These are the causes which have prevented the subject from being better understood, and which will continue to have this effect. We are pleased, however, to see the general facts brought forward into one connected view, and readily confess that it may probably facilitate the conclusion.

The preliminary discourse is in the bold, animated, and eloquent style of Buffon, surveying, with a comprehensive glance, every animate as well as every inanimate being. M. Virey professes, as we have already observed, to be no sectarist; yet nature is his deity. We need not dispute about words; for the moment nature is analysed, the whole must be referred to nature's god. Some little errors have occasionally crept in.

Nature, he observes, differs by shades, but only in its distinct classes: there is no gradation between the mineral and the vegetable. But is he aware, that neither vegetable nor animal life, in any of their peculiar shades, descends more gradually than from the green vegetable matter animated by the sun's rays in pure water, and the beautifully crystallised salt; than the sea anemone or zoöphyte, and the sensitive plant? These, and some similar errors, occasionally arise; and the phlegm of advancing life renders us perhaps less fond of the poetry of natural history, which we were once so much charmed with in Buffon's works, and which is continued in the present discourse. In the second and third parts our author is less brilliant and more philosophical. He rejects the doctrine of spontaneous generation; and pursues the changes of successive generations, to show that what appears to be destruction is, in reality, a renewal, a continuation, of life.

The first book contains general considerations on the human race in a state of nature, tracing it, from the place assigned to it in the scale of organised beings in that state, to its perfect civilisation. On the causes of sociability, and its true foundations, our author's general views are clear and correct. He pursues man from his rank of savage to that of civilised life. He places him among the apes; though he should have noticed Camper's objections to this arrangement; as we observe Camper, with an immense variety of authors ancient and modern, open before him. The natural food of man he believes to be grain and fruits; but in this we think him also mistaken; for, though many nations subsist solely on vegetable food, it is rather from necessity or superstition than choice. He is more correct in supposing language an acquisition by slow degrees, and the first language that of gesture, like the dialogue of animals, of which he supposes the Indian mythologists, Lockman, Bidpas, &c. to have taken advantage.

M. Virey next proceeds to more particular considerations, examining the conformation of man, and comparing it with that of a multitude of animals. He then investigates some of the different species of the human race, their constitution, temperaments, and varieties. He afterwards describes the female sex, and traces the analogy between men and apes; concluding the section with an account of fabulous men.

On a former occasion we offered our suspicions that there were different species of the human race, and found reason to think that there were five, which perhaps might be reduced to three. Our author adopts the former number, and we shall add the outline of his arrangement. The first is the Celtic race, including the Gothic, which, to save the trouble of definition, we called the European of Tacitus.

'One of the principal races of mankind is the Celtic, which is subdivided into two branches. The first has a very fair complexion, hair often white, and strong muscular powers. It comprehends the greater part of European nations, the Cimbri, the Scandinavians, the Teutones, and the Celts, properly so called, Goths, Saxons, Icelanders, Bretons, Normans, Franks, Italians, Greeks, and Celtiberians; also the Asiatic Gauls, spreading over Asia Minor, the Morea, Georgia, and Circassia. The second branch, the individuals of which are of a deeper colour, is formed by the Vandals, Illyrians or Esclavonians, the Getæ, the Polanders or Sarmatians, the Gepidæ, the Thracians, the Russians, formerly the Tschudi, Turks and Tartars of the Crimea, Scythians, Persians, Arabians, and even the Indians on this side of the Ganges. The first are the ferocious and warlike hordes who, descending from the Uralian and Caucasian mountains, and the banks of the Caspian, have overrun Europe and Asia, and covered them with their ravages, particularly at the æra of the fall of the Roman empire under Valentinian, in the fifth and sixth centuries. Uniting more or less with the Mongol race, they have preserved, in a great degree, the Asiatic manners, and become enervated in the fertile plains of the east.'

The whole of this representation is very correct. We wish only that the enumeration had been more carefully arranged, and the distinct varieties more strictly separated.

The second root is that of the Mongols, who are generally attenuated and brown. The two first divisions are the Nomades, comprehending the Calmucks, and the people on the north of China. The third branch comprehends the southern Mongols, the Chinese, Japanese, and perhaps the inhabitants of the western coasts of America. With these the Malays have some affinity, and seem to form a distinct class.

The negro race forms another species, of which the Hottentots, &c. are supposed to constitute a branch, and the last is the Caraib or red American. M. Virey discusses the question of different species at some length, but seems afraid of drawing a conclusion too pointedly. He appears to distinguish, as species truly distinct, the Celt, the Mongol, the negro, and the American, perhaps with strict propriety. Varieties, idiosyncrasies, and peculiar qualities, are next noticed. The stature of man, from an able and comprehensive inquiry, appears to be more nearly the same than has been supposed.

M. Virey proceeds to examine the species nearest to man, the apes; and, after a dispassionate but somewhat humiliating comparison, he concludes that some of the most deformed of the human species, the Esquimaux and the Laplanders, men who have been found wild, without any cultivation and civilisa-

tion, and the ourang-outang, do not greatly differ, perhaps not so much as the Laplander from the Celt.

The author's next subject is the influence of climate, of food, drink, manners, and customs, in all their variety. This physiological and pathological disquisition is very comprehensive and instructive, drawn from sources of the first authority and respectability, but offers to us nothing so peculiarly new or interesting as to tempt us to extract any part. What relates to the original food of man is peculiarly pleasing; and M. Virey here admits of some latitude in what he had before limited perhaps too strictly.

The subject of the third section is re-production, and the various functions connected with this very important business. Such details we cannot with propriety abridge. We find some disputed circumstances; but, on the whole, the physiology is correct and interesting, the compilation extensive and valuable. At the end he returns to the disputed question of the different species of the human race, and determines that the differences are fixed and unalterable; in the language of natural history, they are truly specific. It must be admitted, indeed, that the productions of these different species are fertile; but so are the offspring of many species truly distinct: and, on the whole, he does not appear to us to meet this question fairly. Are the second and third races equally prolific? and does the fertility continue, till by mixture they very nearly again return to one of the original stocks? Our author seems to think that the union of some of the females of the lower orders with the more perfect apes would be prolific. We know not that this would decide the question. In many domestic animals, confessedly of different species, the productions are prolific; and, indeed, when the species approach each other in likeness, the offspring are usually fertile. The appendix contains some additional remarks on the large apes: the object is to bring these animals nearer to men; but, whatever may be the event of this attempt, the remarks strongly illustrate the qualities of these mimics of the human race.

The second volume relates chiefly to the intellectual functions; and the first section treats of man, as the chief of animals; of his natural manners; the principles of his perfectibility; the moral character of nations; of fashions in general; of national customs; of human sacrifices and anthropophagy; of languages, and their dialects; of writing; of religions, their origin and effects; amusements, and dancing; of music, education, and philosophy; national pride; slavery of negroes; classification of nations according to their civilisation; and of the marks of their perfection.

M. Virey justly observes, that the intellectual functions alone raise man above the animals; a system which confounds him;

for the consideration of these is now necessary to the completion of his natural history. In this long section we have much to commend, and somewhat to oppose. It is a new idea, that canibalism is a trait of manners approaching to civilisation. Man begins with being savage, and is afterwards a barbarian. Probably, however, the history of mankind will confirm this doctrine; for, even in the Society Islands, where civilisation has made a considerable progress, some traces of canibalism, as we have remarked, are still preserved. One of its causes is famine; but it has escaped the lyncean eyes of our author, that, within the records of history, it was not unknown in times of dearth in Egypt. Abdollatif records it very explicitly. What M. Virey observes with respect to language and writing, is perhaps not perfectly correct; but his remarks are judicious and comprehensive. We regret that our limits prevent us from enlarging on them.

We have already noticed, in the employment of the term nature, a little of the fashionable infidelity of the author's age and nation; on the subject of religion, it glares very offensively, and demands our warmest censure. It may be styled liberality and philosophy; but this is an abuse of terms: liberality is not inconsistent with a belief of God and a superintending Providence; and philosophy (that is, the study and knowledge of nature) will, *we know*, lead to the foundations of religion as its only support. We have said, and we repeat it, that he is a shallow philosopher who builds his system on infidelity; but, let what will be its basis, if carefully pursued, it will ultimately lead to an all-wise and all-powerful author. We say this the more solemnly, and the more pointedly, because we have been accused ourselves of infidelity, by some who are too short-sighted to comprehend the extent and the force of our reasonings. What in this case has been objected to, will, by a real philosopher, be found to be most distant from the imputed principle.

Though the negro nation be confessedly inferior to the other races, there is no reason why they should be persecuted or enslaved. This we have often repeated, and it is the opinion of our author. Negroes are inferior in bodily and mental powers; and if a Phillis Wheatly and Ignatius Sancho be objected to, and we shall allow our antagonists to make the most of their argument, they will find it at last amount to very little. The ancient Ægyptians were also, in our author's opinion, very trivially advanced towards civilisation. We have constantly said the same; and we think M. Virey has placed them somewhat too high in his classification. Indeed he seems to think so himself. The American Indians should, in our opinion, have been elevated above the negroes, who seem to be a connecting link between the Caraib and the lower races. Yet, in their natural state, they

are mild, benevolent, and ingenious: so indeed are the copper-coloured Americans; and perhaps the pre-eminence may be fixed with some difficulty.

The second section is on the philosophical principles of the moral perfectibility of man, and treats of the beauty of forms, and their connexion with perfection; of the philosophical foundation of perfectibility; of nervous sensibility; of sentiments and physical sensations; of the moral influence of climates; of temperaments; of the activity of the soul, its powers and passions; of the connexion of human acquisitions with different countries; of the advantages of population; of education; of love, considered in relation to moral perfection; of governments and natural laws; of the gradations of political states; of patriotism; and of the progress of the human mind. On these subjects we can scarcely have time to enlarge. Our author's judicious and comprehensive views are, in every part of this section also, conspicuous, though mixed with occasional errors. The connexion of beauty with moral perfectibility, or, in more general terms, that in the constitution of man (*dans la physique de l'homme*) we must trace the elements of his moral perfectibility, is a most pleasing subject, and admirably discussed. There is one singular passage, which we cannot forbear noticing. The author remarks that the greatest men are seldom gay: joy seems to be a light superficial passion, which they scarcely feel. 'Jesus Christ, whom both Christians and philosophers allow to have possessed a very superior genius, is never said to have laughed. All great men are more gloomy than gay.' In what rank we may be placed, we know not; but this passage excited a smile, or rather (let us tell the truth), in spite of our philosophy, compelled a loud laugh.

We read with much interest and pleasure the description of the wild boy caught in the forest of Aveyron. He was seemingly the child of civilised parents, left apparently after a wound in his neck, and probably supposed dead. We know not, however, how we could convey our author's very full and philosophical description to our readers, except by a more detailed extract than our journal will admit. We shall add, in a few words, that he constantly walked erect, could climb easily, run securely and swiftly, but not swim; was not fond of animal food, but of nuts, acorns, &c. rather than of fruit; could bear cold without inconvenience, but loved warmth; had no articulate sounds, and is yet incapable of forming any. He has no attachment to those who take care of him, but is wholly absorbed in self, or rather in procuring food. Without this, in our author's view, he is indifferent to every thing and every person: food he seises greedily, ascertains its quality by the smell, then by the taste, and places the different kinds in the order

suggested by his palate. He hoards what he cannot eat, and hoards in profusion, which could have been his only means of support in winter, in the caverns of Aveyron. He seems impatient of confinement; sleeps much, but not particularly at night; is not fond of cloaths, and totally insensible to every idea of decency. It is a surprising but not a singular circumstance, that he seems uneasy at the sight of children of his own age; for other wild children have been the same. If we can judge from this young savage, man in a wild state must rank very low indeed; but he is young, and his talents are not perhaps naturally good.

These very interesting and philosophical volumes are concluded by an account of the parasite animals of man, and by a list of authors. We wish we could have added that they contain also a good Index.

---

ART. VI.—*Histoire des Progrès et de la Chute de l'Empire de Mysore, sous les Regnes d'Hyder Ally et de Tippoo Saib. Par J. Michaud.* Paris.

*History of the Rise and Fall of the Kingdom of Mysore, under the Reigns of Hyder Ally and Tippoo Saib.* 2 *Vols.* 8*vo.*

THOUGH the stories of Hyder and Tippoo have been told *ad fastidium usque*, we procured these volumes with eagerness, and perused them with no common attention. In fact, '*audi alteram partem*' so strongly occurred to us, that we hoped we might trace a new vein, and perhaps discover ore of a peculiar value. We early found ourselves mistaken, and perceived that a great part of the work is purloined from English publications. Yet various circumstances contributed to prevent us from regretting the time employed in perusing it: and we shall endeavour to secure to our readers those advantages, without the loss of time sustained by a general lection. M. Michaud has been indebted to M. Henricks, who served with some distinction in India, for much useful information respecting the former and present state of the peninsula; and we know not where we could direct the young or less-informed reader to a more clear and comprehensive view of this vast empire, of its prior relations, and the changes induced by later events.

Of the former state of India, and the successful usurpation of Hyder, we want no new information; and M. Michaud furnishes us, indeed, with nothing additional. The character, however, of this usurper is drawn with so bold and definite a pencil, that we are tempted to copy it.

'Endowed with violent passions, his youth was distinguished

by storms, and by events which belong rather to romance than history. The continued misfortunes which overtook him while yet an infant, ripened this experience; the frequent obstacles in his way excited, at an early period, his courage, and expanded that genius which distinguished him in his civil capacity, and in the field of battle. His mind was little cultivated, but his views were correct. He particularly possessed that virtue so rare and so necessary for kings—the knowledge of men, and their proper situation. Enterprising, and attaining his end by means unknown to common men, disdaining Asiatic pomp, and full of admiration for European tactics, he profited by every custom and every idea that could be useful to him. He often soared above the prejudices of his religion, in conciliating every sect and managing every party. Some authors have called him the Frederic of Hindustan; and Hyder only wants a historian to secure him that appellation. He was faithful to his engagements, and implacable in his vengeance. Some of his actions would, among the polished nations of Europe, have appeared those of a haughty despot; but when compared with other Indian princes, we admire his moderation, and think him a generous sovereign.'

Tippoo inherited the political genius of Hyder, but had not the qualities necessary for success. The conquest of Hindustan, without being too high for his ambition, was beyond his powers.

'Tippoo had more vanity than true greatness of character. The title of *regent* was not sufficient for his pretensions; he took that of *sultan*. The ghost of Hyder, which still continued to govern the kingdom of Mysore, together with the love of the people, led them not to disapprove this new title, but did not give him resources to support its dignity. He seems to have taken too great pains to display his power, and not sufficient to preserve it, or render it legitimate in the eyes of his subjects. It is a phænomenon sufficiently singular in India, to see princes attempt to found their usurpation on the opinion of those whom they have subdued and despised. Tippoo emancipated himself too soon from this political duty. The success he had obtained under the eye of his father was sufficient to induce him to assume the title of the '*victorious*.' He suffered himself to be elated by the splendor of authority; and too great confidence in his own strength drew him into an absurd enterprise, which deprived him of his kingdom and his life.'

Tippoo's views were to annihilate the British power in India; and with this design he sent the well-known solemn embassy to France.

'At that period the assembly charged with the office of preserving France from the evils which threatened it, attending only to their own interests, sacrificed those of the republic. The embassadors of Tippoo became a spectacle, and nothing more. Instead of attaining the object of their mission, they were amused with entertainments; instead of real promises, they were contented with impotent professions of amity.'

The catastrophe was mournful. The embassadors extolled France, its splendor, and power, to a despot who hated all Europeans, and courted the French only to feed its animosity towards the English; and they were executed with no other notice, than a vague report that they had betrayed their sovereign.

'At the moment of their fatal boasting,' adds the historian, 'seditious complaints were raised among us respecting the state of France; and the revolution was preparing to destroy the resources of that empire which excited envy even so far as Hindustan.'

The intrigues of the adventurer Ripaud, and Tippoo's previous alliance with the court of Persia and other powers, in pursuit of his favorite object, are well detailed.

'The opening of this assembly of the apostles of the agrarian law happened on the 25th of May 1797. The doctrine of equality was developed at the court of the most absolute sovereign of India, and liberty proclaimed before the most submissive nation of the universe.'

The original pieces are preserved, as well as the burlesque discourses of these odious proselytes of universal regeneration; 'in which madness disputes for the superiority with ignorance, and absurdity with atrocity.' It was at first proposed 'to burn the attributes of royalty, to plant the tree of liberty, to swear to defend the republican constitution, and die with their arms in their hands, rather than forsake the cause of liberty.' Their laws were 'a deformed and a monstrous copy of our revolutionary principles. Death was the punishment for every offence: and there was only wanting in Seringapatam a revolutionary tribunal, to give the Indians a picture in miniature of the French revolution.' Tippoo's 'meanness,' in witnessing the erection of the tree of liberty, is particularly noticed, and the extraordinary titles given to the chiefs of the republican government by an absolute monarch properly reprobated. These are—'the magnificent and elevated in rank; the courteous sanctuary of friends; the objects of regard; the gentlemen constituting the executive power.' The events are well known:

they are seemingly detailed with impartiality and judgement; and the political conduct of the English government, in their arrangements after taking Seringapatam, is spoken of with much commendation. We have copied some parts of M. Michaud's work more scrupulously, to show what opinions are formed of Tippoo by his late allies, and what judgement of the conduct of the French government historians dare publish at this time; for in the conclusion the present rulers are implicated.

In the second volume M. Michaud describes the state of India, and the different powers which divided the peninsula, before the arrival of the French and English. We need not enlarge on events sufficiently known, but shall follow our author where the importance of his reflexions and the value of his facts render the different passages interesting.

'The riches of the English colonies,' he observes, 'consist, 1. in their commerce and manufactures; 2. in the subsidies which the company draws from the different powers in India; 3. in the revenue of the conquered countries. One of the great advantages of English manufacturers in India,' [are there such?] 'is, to have workmen whose maintenance is unexpensive. The Indians are more sober and more patient than Europeans,—consequently more expert in those works which require a long time in attaining a finished perfection. The dyes of India are also more brilliant than those of Europe. England must therefore derive considerable advantages from Indian manufactures; but its greatest advantage is unquestionably the produce of the lands, which returns to its treasury the money paid for the manufactures. Colonel Taylor computes the revenue of the India company at eight millions.'

The singular mixture of British and Indian legislation, religion, dress, and manners, is particularly noticed by our author: but he adds, in confirmation of an opinion we have frequently had occasion to offer, that the Indians often quit their native districts to live under the English government; not for the reason assigned in this volume, 'that they dread less the arbitrary authority of this new rule than the weakness of their own,' but because it is *not* arbitrary while administered by a distinguishing and impartial jurisprudence, wisely brought as nearly as possible to their own. Their chiefs, he adds, took the whole produce of their lands; the English but half, and sometimes one third: the Indians, therefore, possessed property before they knew the value of calling any thing their own. Some buried their money, others placed it in the English commerce—giving in that way a pledge of their fidelity. The religion, the morals, and the customs of the Indians, are well known to the English reader, from numerous publications in this country. Indeed India, a vast *imperium in*

*imperio*, must be in all its relations peculiarly interesting to Englishmen.

M. Michaud takes the Indian from the first moment of his birth, and describes all the circumstances which attend him to the last hour of his life. His baptism, his instruction, his food, clothing, assuming the rank of manhood, and his marriage, are all pointed out, and detailed with particular care.

'What appears extraordinary,' he observes, 'is, that we seldom find unhappy marriages in India, though the husband and wife be not previously acquainted, and the union is contracted at an age when the heart cannot know whom it would love. This is not favourable to what we style marriages of inclination.'

The Indian abandons life with the same calmness with which he enjoyed it. The widow alone is unhappy: for the state of widowhood was supposed by the Hindus, before the introduction of Mahometanism, to be a punishment imposed by the gods. This introduced the custom among widows, of burning themselves on the funeral pile of their husbands; a custom forbidden 'by their new masters;' and so much discouraged, that M. Henricks saw only one instance of it in ten years. In the month of June, 1784, a pretty woman, about sixteen or seventeen years old, who had passed about five years in union with her deceased husband, demanded of the commandant of Tripatore permission to sacrifice herself to the manes of her husband. She was refused: but, as it is usual in requesting a favour to present a bowl of sherbet, she did so; and it was said to be somewhat heavier than if it had contained fluid only. Permission was consequently granted. During two days she appeared cheerful; on the third she seemed distressed; and, at the fatal moment, intoxicated with opium. The usual ceremonies were observed; and, urged seemingly by despair, she threw herself into the flames. The relatives scattered oil and small bundles of wood on the fire; the Bramins, '*undoubtedly from compassion*,' enlivened the flame by throwing in large logs; and M. Henricks saw, from his horse, some of these logs evidently directed to the head of the victim, to terminate sooner her sufferings. We have seen, on another occasion of this kind, that the roof was humanely dropped.

In the last chapter M. Michaud introduces a historical table of the commercial relations of India with Asia, Africa, and Europe, from the earliest period down to our own time. It was the report of the Ægyptians, Phœnicians, and Greeks, which induced Alexander to visit India: similar motives have operated in modern times; but we cannot, with our author, think the event unfortunate for the inhabitants of Hindustan, since we are confident that under the English government,

whatever appellation be given to the attempt, the Indians are much happier than at any former period, or than they would have been at this time, had Englishmen never visited their shores.

On the whole, this is a pleasing and instructive work. The materials are not properly brought together, nor always advantageously displayed; but the style is simple and entertaining, the observations frequently judicious, and the details interesting.

---

ART. VII.—*Annales de Chymie. Tomes XXXIV et XXXV.* Paris. 1801.

*Annals of Chemistry. (Continued from Vol. XXXII. p. 501.)*

THE first article in this volume is an important one; it has been already alluded to; and we must own that the author's conclusions have not been generally admitted on the continent, though they appear to be highly plausible. The principal point in contest arises from the appearance of azote on the decomposition of water. Dr. Priestley has adduced this consequence in proof of the existence of phlogiston, while his antagonists derive it from the external air. Mr. Girtanner, in this memoir, inquires whether azote be a simple or a compound substance? and his general result is, that, to obtain it in the greatest quantity, the water must evaporate slowly, with a gentle heat; but that, when the water is wholly evaporated, the production of azote is at an end. One consequence is, however, unavoidable: in the slow evaporation of water, this fluid is not decomposed; for it may, with little loss, be recovered by condensing the steam. M. Girtanner, however, whose opinions are in general hastily formed, hence concludes that azote is composed of hydrogen combined with a small proportion of oxygen, or, in other words, that water is oxygenated hydrogen; and since clays, with some other earths, attract oxygen from the air, that the remainder must be azote, as no more oxygen remains than will saturate the hydrogen so as to produce the azote. There is however, as we have said, something plausible in considering the atmosphere as a gaseous water; and this view explains very well the appearance of azote in different experiments. The foundation, nevertheless, is not well supported; and many of the observations adduced to confirm it will admit of different interpretations. Yet we think that this idea merits farther investigation. The author's infidelity is indeed too conspicuous, in styling the green matter formed in water 'organised azote,' re-conducting us hereby back to all the confusion of equivocal generation. This observation, we know, will excite his indignation; but if he *be* a philosopher, he will be convinced that his frothy declamation on

this subject is of little importance. If equivocal generation be once admitted, species can never remain distinct, and hybrids will be more numerous than species.

The article which follows is an abstract of the Elements of Pharmacy, by M. Carbonell, published at Barcelona. This work has been long in our hands; but it is interesting only as a publication from a country where science is at the lowest ebb. It offers nothing worthy of notice to the more enlightened reader.

M. Guyton's memoir on the Colouring Principle of the Lapis-Lazuli, is, in its historical narrative, entertaining, but will not admit of minute analysis. The substance analysed is a sulphat of lime, coloured by an oxyd of iron, adhering so strongly to the flint as to resist the action of acids. This sulphat, treated with carbone, produces a sulphur of iron, in which the metal is less oxydated; yet which, dissolved in acids, gives merely a green precipitate on adding the prussiats, but preserves its blue colour in pot-ash and in dry fusion. The precipitate is destroyed, instead of being enlivened, by acids. The sulphur of iron, with the same properties, may be prepared by synthesis; and it is found also to be the true colouring principle of the lapis-lazuli.

A comparative Analysis of Human Bones, and those of different Animals, follows. The author is M. Merot-Guillot; but we have lately pursued this subject under the guidance of Mr. Hatchett; and it is not necessary in this place to examine the agreement or the discrepancy of their conclusions.

M. Berthollet's Eudiometrical Observations, and M. Monge's Description of the Fountain of Moses, have been already noticed in our account of the memoirs relative to Egypt.

M. Happel-Lachenaye, of Guadaloupe, seems to have greatly improved the manufacture of sugar; but his process is not published. An account of a course of physical and chemical mathematics, and M. Thenard's remarks on the necessity of uniting the theory with the practice of chemistry, offer nothing very interesting to us at this time. M. Gadolin's introduction to chemistry, on the antiphlogistic plan, is equally uninteresting.

We formerly declined enlarging on M. Chaptal's essay on the Means of perfecting the Chemical Arts in France. The continuation we must of course omit; though the present part, on 'the means of diminishing the price of manufactures,' merits particular attention, yet it must obtain it from those only who can read the whole at leisure. Its importance is also in a great degree local.—M. Vauquelin has discovered the malic acid, joined with lime in a large proportion, in the common house-leek, the sempervivum tectorum.

The miscellaneous information in M. Trommsdorff's letter is not very interesting. This chemist discovered lime in gall-nuts, and the elastic resin in opium. We do not recollect that we have ever published, in this journal, the properties of the new

earth *agustine*, so styled because its salts have no taste. We shall add them from the letter before us.

In its state of purity it resembles alumine; not more soluble either in the dry or moist way in pure alkalies, either fixed or volatile, than in their carbonates. It retains very weakly the carbonic acid, acquires hardness without heat in fire, is insoluble in water, and unites with acids, forming tasteless salts. When hardened in fire, it unites with acids as easily as before calcination. The sulphat of agustine is not very soluble, but, when acidulated, more so; and it then concretes in starry crystallisations. Supersaturated with phosphorus, it affords a very soluble salt; but its acetite is scarcely soluble.

M. Vauquelin's memoir on the Glass of Antimony shows, as we have always supposed, that this preparation is more certain than any other. It at times, however, contains particles of flint, which it seems to acquire from the crucible.

Van Mons has communicated a short note on the preparation of Muriatic Æther. He gives an interesting account of the history of this substance, and points out the necessity of employing, as in the present advanced state of chemistry will be easily understood, the oxygenated acid. Before the principle was so well known, the muriatic æther was prepared chiefly by accident. But to this subject we must soon revert.

The Reflexions on the French Pharmacopœias we have already noticed: the continuation follows; and we next find a further account of Crell's Annals of Chemistry by Van Mons, and of Brugnatelli's Annali di Chimica. In the former we perceive nothing interesting; but from the latter we shall select some remarks.

Observations on the Phosphorism and Sex of radiant Worms, by M. Carradori, are of importance. Linnæus thought the largest and most brilliant ash-coloured worms were females of the lampyris splendidula, and that the smaller dark species were females of the lampyris Italica. De Geer was of a different opinion; but our author rather confirms the idea of Linnæus, since he has seen the lampyris splendidula in copulation with the shining ash-coloured worm, and producing eggs from which similar insects proceeded. With respect to the black shining worms, he neither follows the opinion of Linnæus nor De Geer; the latter of which he opposes by the comparative view of the duration of their life with that of the lampyris Italica. This black worm he thinks has no relation to the lampyris Italica, and the male is apparently yet unknown. In a subsequent correspondence with M. Rossi, our author seems willing to consider these black worms as neuters, like the working bees; a conjecture which M. Rossi refutes. M. Carradori contends with great reason, that the splendor arises from the emission of light, distinct from heat or combustion.

The same author gives an account of the transformations of

the tremella nostoc, which changes to the tremella lichenoides, the lichen tremelloides, gelatinosus, crispus, and rupestris, according to the soils and situations. Some other transformations are noticed; and M. Carradori is inclined to suppose that the tremella nostoc may be a kind of coralline, the habitation of animals. Little difficulty however can result from these changes; for it is admitted, that when the tremella nostoc is arrived at maturity, the changes are less common, or not observable. The phænomena merit however further consideration, since these plants cannot be considered as different species. M. Carradori has not observed the sex of the tremella nostoc, and concludes that it is nourished and propagated like polypi; but this opinion is not satisfactorily supported.

The other articles are related too indistinctly to enable us to follow them with advantage; but some, we perceive, are translated entire, in subsequent numbers. M. Clonel's 'Inquiry into the Composition of Enamels,' admits not of an abstract.

An elaborate essay by M. Dejean follows. It is entitled 'a Memoir on the Manner of extracting and preparing Turf in the Provinces of Holland and Utrecht, and on the Advantages to be derived in the Department of la Somme from adopting, in part, the Dutch Process.' Though a valuable memoir, it is of local importance only, and admits not of abridgement. On the origin and nature of turf and peat the author's opinions are not correct. Some English naturalists have elucidated the subject more satisfactorily, though much remains to be explained. It has often occurred to us in this journal.

From Crell's Annals are inserted some Observations on Titanium, by M. Lowitz. The ore was of the colour of iron, of a metallic brilliancy, and its fracture was brilliant and granulated. It was very hard, brittle, and cut glass: its ore was not attracted by the magnet, and its specific gravity was 4.673. This ore contains, in 100 parts, 53 of oxyd of titanium, and 47 of oxyd of iron. The iron was completely separated by boiling the ore in muriatic acid.

M. Gmelin found the regulus of chrome of an obscure lead colour, while to Vauquelin it appeared of a yellowish white. This author found the tellurium distinguishable from other metals, by its great fusibility, which approaches that of lead; by its volatility, which is as great as that of arsenic, without its smell; by its beautiful blue flame, different from that of copper, zinc, or sulphur; by its solubility in caustic alkalies, and its difficult solution in nitric acid; by the yellow colour of its solution in the nitro-muriatic acid; and the tender green of its precipitates by the Prussian alkali, and the yellow white of its precipitates by mild alkalies.

M. Hildebrant, in the same collection, describes three methods of giving the Clout Leather of Russia qualities equal to that of

England, and rendering it impermeable to water. One of these, as it is applicable to our own leather, we shall transcribe. He boils a pound and a half of minium, with twenty pounds of linseed oil, till the oxyd is dissolved and the whole becomes of a brown colour. With this the leather is moistened *on the inside* till it will absorb no more, and then dried. When the varnish thickens, it is rendered liquid by spirit of turpentine. The art of hardening copper, we are told by M. Hielm, consists in adding one-sixth of tin. This, we have long known, was the process of the ancients, and which rendered the English tin of so great value; though some late authors have idly fancied that the metal was employed in dyeing scarlet, a colour that the ancients were probably unacquainted with.

A dispute has arisen on the continent respecting the theory of the formation of æther. Some memoirs on this subject follow, by MM. Laudet, Dabit, Fourcroy, and Vauquelin. We had prepared a full account of the dispute, but find it too long for this part of our work. The principle of the former authors is, that æther differs from alcohol in containing a larger proportion of oxygen, with some hydrogen and carbone. This doctrine is opposed by the two latter, who, on examining the æther produced by the process of Dabit, find it different from common æther. It seems, however, that M. Dabit is, on the whole, right; for his experiments are strong and decisive; and MM. Fourcroy and Vauquelin have recourse, in some degree, to a subterfuge, to escape their influence. This æther, they aver, is not the same with their own; but their theory alludes to æther in general, and not to any particular form of it. In fact, then, they have abandoned the question. The chief conclusion of Dabit is, that any quantity of alcohol may be changed into æther without the assistance of heat, by adding oxyd of manganese, and that alcohol differs from æther only by containing a greater portion of hydrogen; so that æther is the intermediate step between alcohol and the sweet oil of wine. The æther of the Parisian chemists contained more hydrogen, with less carbone and oxygen, than that of Dabit. We think, however, that the carbone is suspended, for the æther is of greater specific gravity.

In a miscellaneous abstract from a letter of M. Girtanner, we find considerable praises bestowed on oxydating remedies for the Venereal disease. These we have now been able to appreciate with justice; and we shall of course trust little to the author's recommendation of the most active remedy of this class, the oxyd of arsenic, which is supposed to be more effectual than every other. Girtanner lately died of an apoplexy, at the age of forty, and has not left behind him the character of a sagacious or a cautious philosopher. Few of his fancies are likely to survive him long. M. Humboldt, the present philosophical

traveler, scarcely merits a better fame. His chemico-physiological experiments have been lately confuted by M. Pfaff. We never thought of them so highly as to make them the subject of our communications, so that we need not enlarge on their confutation. Some observations in defence of the term oxygen form the subject of the last essay of the present volume, except MM. Fourcroy and Vauquelin's observations on the preparation of æther.

The first essay in the thirty-fifth volume is a description of an Hygrometer and Photometer, by Mr. Leslie; but this has been published in our own language, in more than one very respectable collection.

When, in the beginning of this article, we mentioned that M. Girtanner's system of the composition of azote had not obtained the concurrence of the chemists on the continent, we particularly alluded to the remarks of Berthollet in the present volume. He contradicts the experiments of Girtanner in almost every instance, particularly those in which he remarks that oxygen is absorbed by moistened earths. M. Saussure, on repeating the experiment, found this effect produced only by vegetable mould, in which decaying vegetables were present.

M. Vauquelin's report of M. Proust's 'Memoir on different Subjects of Chemistry,' is a very curious one, but difficult to abridge in language shorter than that of the abstract. We are however less solicitous on the subject, as the paper itself will probably recur to us in the Memoirs of the National Institute. The most interesting parts are on the properties of the tannin, and on ink. With respect to ink, he thinks iron a much better ingredient than sulphat. This, if we may trust our recollection after many years, was the opinion of Dr. Bancroft, for the continuation of whose experiments on colours we wait with impatience. Vauquelin, we observe, differs from M. Proust in some circumstances of inferior moment.

M. Parmentier, in his 'Reflexions on Medicated Wines,' disapproves of these forms, and rather recommends a tincture of vegetable substances to be added occasionally to wine. He justly remarks, that wine of itself is a generous cordial, but that in the preparation it becomes flat, and is partly decomposed; while the medicinal substance, in many instances, contributes to deteriorate it. The number of medicated wines is much abridged in our dispensatories; and to those which are retained the author's objections do not apply.

As we did not enlarge on M. Thenard's 'Discourse on the Necessity of uniting the Practice to the Theory of Chemistry, to render it useful to the Arts,' we shall not stay to notice the criticism of Delunel. It relates chiefly to the proper method of conducting a pharmaceutical education, and the observations seem to be sharpened by a little personal resentment. Josse's

Abstract of the Life and Works of M. Laborie is not peculiarly interesting. He was a pharmaceutical author, little known to the English chemists.

An abstract of M. Carradori's memoir on Adhesion, or the Attraction of Superficies, is incapable of farther abridgement. Its object is to show that adhesion differs essentially from affinity, and is not, as Morveau contends, its first effect. The order of adhesion is curious. A drop of oil expands on water: if a farinaceous powder be thrown on it, the oil is driven to the sides in sphærules; and this experiment will show whether any earthy substance be mixed with the flour. Volatile oil will displace the farina, and the milky juice of the tithymallus the volatile oil.

A singular accident occurred at the gun-powder manufactory at Essone. Some of the charcoal of the rhamnus, while sifting, inflamed spontaneously.

A letter from M. Humboldt follows. He speaks with his usual ardor of his travels and discoveries. The letter is dated from South America; and we shall select one or two passages apparently interesting.

He descended into the crater of the volcano of Teneriffe, where he found the temperature to be at 0.8 of Réaumur, and the oxygen to be 0.19. He mentions his discovery of the acid found in the fresh coffee berry, which he styles a gaseous *carbure* of oxydated hydrogen, which, when absorbed by water, gives it the taste of alcohol; and, what we now somewhat distrust, of a white heavy spar, which, when moistened, absorbs *all* the oxygen of the atmosphere. He has observed a parallelism of direction in all the primitive mountains of Italy, of France, of Sweden, Germany, Poland, and Spain, between the strata of foliated granite, ardoises, and micaceous and horny schisti. These strata fall to the north-west, and their direction makes, with the axis of the globe, an angle of 45° 75′. This inclination, however, does not depend on the direction or the form of the mountains; nor is it affected by the valleys, but is apparently owing to a greater and more general cause—to an effect of attraction, which seems to have acted from the æra of the consolidation of the globe. The great mountains in the New World have the same inclination.

M. Humboldt has made many experiments with the air which explodes from the trunks of trees. In the clusea rosea there is a large quantity of air, containing 0.35 of oxygen. This air coagulates the fibrous parts of the plants, and in the clusea, which affords a milky juice, forms the elastic resin. Though the air of this country be of extraordinary purity, that inclosed in the siliquæ, capsules, and joints of plants, is very much adulterated with azote, containing from 0.25 to 0.15 of oxygen.

In the following number is the last part of M. Chaptal's 'Essay on the Method of rendering the Chemical Arts in France more perfect;' and we next find an abstract of the Report of the Commissioners appointed to examine M. Achard's Experiments on the Method of preparing Sugar from the white Beet Root. The sugar-cane and the sugar-maple of America are preferred in France; but their juices are mucous rather than saccharine. The commissioners were able to procure sugar from the beet-root which was tolerably fine; but, including all expenses, it could not be sold under eighteen sols per pound. They seem to doubt whether a more favorable soil might not be found for the plant, or a more beneficial method of preparation discovered. We perceive, however, that some of the advantages are already over-rated in their calculation, and the expenses too much diminished.

M. Vauquelin has found the malate of lime in many other plants besides the sempervivum tectorum, particularly the sedum album, acre, and telephium; several species of crassula, the cotyledons of every plant, in many of the mesembrianthemums, but in a smaller proportion than in the crassula and sedum, and in the common portulaca. A small quantity was found in the cactus and aloë. All these juices, with the acetite of lead, assumed different colours, such as yellow, orange, and green, some of which appeared sufficiently solid to be employed in painting. To this list, from the experiments of M. Deserres, we may add the cactus opuntia, and the agave Americana. The malate of lime is accompanied sometimes by a mucilaginous, sometimes by a saccharine substance; sometimes by a nitrat of pot-ash, as in the mesembrianthemum edule; but in general with little extractive matter. There is commonly a large proportion of the green fæcula, usually called the green parenchyma of vegetables. The malic acid is, in these instances, probably the parent of the oxalic.

The observations of MM. Fourcroy and Vauquelin on the pyro-mucous, pyro-tartarous, and pyro-ligneous Acids, are important. They are one and the same; viz. the acetous acid, with the addition of the peculiar empyreumatic oil. It follows from these experiments, that the acetous acid is a much more frequent production than has been supposed, and by no means owing exclusively to fermentation. Our author explains the different processes by which it may be produced, and points out the peculiar impregnations derived from each.

Van Mons' memoir on the Rhus radicans is not unknown to the English chemist, and we need not enlarge on it. The author chiefly explains in this volume the different preparations of the plant.

Von Crell has communicated a curious essay on the Decom-

position of sedative Salt. Chemists have hitherto endeavoured in vain to imitate or analyse it, and our author is not much more successful. He found in it, however, a combustible substance, disposed to become carbone, with a given and tolerably steady proportion of carbone mixed with a little earth; but it differs from every other carbonised substance, in resisting fire, deflagration with salt-petre, &c. A volatile acid was discovered, which resembled in many circumstances the muriatic acid, but did not precipitate lead. In some respects it resembled the sebacic acid.

M. Raymond has discovered some new properties in the hydrogenous phosphoric Gas. It unites with water, giving to it a strong disagreeable smell and a bitter taste: it may be contained with ease in water, and again separated, with little change. Perhaps it may be useful in this way as a medicine, and may be employed to form different metallic phosphures, which have hitherto been prepared only in the dry way.

M. Chaptal's very elaborate treatise on Wines, contained in the present and following volumes, has already been published entire in some English collections, and would not otherwise, from its extent, have been the object of our attention in this place, though it might have been noticed in a separate article. The saline and sulphureous water of Gamard is very imperfectly analysed by M. Meyrac: it is a hepatic water, chiefly containing carbonate of lime and muriat of soda.

The last article in this volume is an abstract of M. Losel's method of the Art of making Glass, which it is impossible to contract within narrower limits, if we would render it interesting or intelligible.

---

ART. VIII.—*Zeichmungen auf einer Reise von Wien, über Trieste nach Venedig, und von da Zurik durch Tyrol und Salzburg.* Berlin. 1800.

*Sketches made in a Journey to Vienna, through Trieste and Venice, and the Return by the Tyrol and Salzburg, in* 1798. 12*mo.*

M. HAMMER, the author of these Sketches, is, we suspect, the German traveler of whom we have lately heard. He is also a poet; and, previous to his setting out in the suite of the imperial embassador to Constantinople, sent to one of his friends in Germany a little epic poem, entitled Schirin, in seven cantos, in stanzas like the Oberon of Wieland. It is said to be the effort of a brilliant imagination, animated by all the poetic spirit of eastern literature. It is not yet published, but supposed to be in the press

Our author was employed during two years in the imperial embassy at Constantinople, whence he traveled into Cyprus, Crete, and Syria. As he speaks the Persic and Arabic as well as his mother tongue, his chief object was to penetrate to the cradle of oriental civilisation. The description of his journey, we trust, will not be lost; we have reason to suppose it will not.

The present work is comprised in twenty-one letters, which are not fictitious, but truly addressed to his friends, among whom we find MM. Herder, Bœtiger, and Weimar; and nothing is curtailed but what relates too particularly to those to whom the letter is addressed. We have followed the author with pleasure, whether he describe the situation of a city or the picture of its inhabitants, whether he speak of literature or the arts. The subjects are so numerous, that we find it difficult to accompany him minutely, or even to prefer one passage to another. As we have had occasion to allude to the literary imposture of the abbé Vella, we shall take this opportunity of giving our author's detail of its detection, which is more comprehensive and satisfactory than any that we have seen.

'Among the books which I saw for the first time in the library of St. Mark at Venice, I was particularly attracted by the specimen of the Codex Diplomaticus Siculus, and the explanation of the celestial globe in the Museum at Villetri. In the first I found a manuscript proof of the famous literary imposture, which, in boldness, exceeds every thing hitherto known of this nature. It was a letter which a learned Neapolitan addressed to the librarian Morelli, and an extract of the information demanded from the bishop of Aleppo by the courts of justice. With the permission of Morelli, I copied it.

'In the first place,' says the bishop, 'the Codex Martinianus is not written in Cufic characters, but in the straight simple ones. 2dly, We see clearly that it has been falsified, by adding different circumstances and different facts. 3dly, The book does not contain the history of Sicily, but the life of Mahomet; and Vella has changed the name of Sofije, one of the wives of the prophet, to that of Saklige (Sicily); on this account we read, in the 22d page, line 29, "his spouse Sicily." 4thly, The name of the copyist is Abdallah, the son of Ahmet, with the year 637; but Vella calls him the mufti Mustapha. The code of the Normans is only a bad translation from the Italian into Arabic, the fallacy of which is conspicuous from the similarity between the style of the califs of Egypt and the Sicilian princes. Vella attributes to the former the vulgar Begouin Arabic, while it is well known that at Cairo the Arabic was spoken in its utmost purity.'

The title-page of this journey is adorned with a beautiful little

engraving: it represents an interesting subject mentioned in p. 162.

'In passing before the church of St. Moses at Venice, we saw,' says the author, 'four or five young persons, dressed in white, and kneeling in a line, on the road. Their long brown hair fell over and covered their faces. Before them some handkerchiefs were stretched on the ground, on which were pieces of money. They stretched out their hands to the passengers, supplicating charity: they spoke not a word: plunged in sorrow, and silent, they resembled the statues of the Virtues under a veil, which we often see, executed in alabaster, on some funeral monuments. They are the wives and daughters of the former poor nobles, to whom the senate of Venice allowed pensions, and who are obliged in this manner to support themselves. Not to be recognised by the passengers, they veil their faces; modesty and hope engage their attention. They are ashamed to beg, and they trust that the present (the Austrian) government will assist them, and enable them to conceal their misfortunes from their friends and acquaintance. The police is acquainted with these unfortunate persons, and has arrested many impostors, who attempted to imitate them without the same motives. To maintain their husbands, they have been obliged to descend to the lowest occupations. Some have become copyists; others have sold vegetables in the market; and some have even rowed gondolas.'

The typography of this book is beautiful; and the map which the editor has subjoined assists the reader in understanding the author's route more clearly.

---

ART. IX.—*Voyages Physiques et Lithologiques dans la Campanie, &c.* Paris. 1801.

*Physical and Lithological Travels in Campania. By Scipio Breislak. Translated by General Pommereuil. 2 Vols. 8vo.*

THIS work was printed five years since in Italy, under the title of The Physical Topography of Campania: yet in its present appearance it is in a great measure original, and can scarcely be styled a translation. The author, from repeated examination, has rectified it in some places, and in others re-composed it. General Pommereuil has also translated it under his own eye; for, a partisan of revolution, he was obliged to escape when the French were driven from Naples.

The environs of Naples are so curious, that numerous descriptions have been published of them: we have seen, however,

none so full or so striking as the present. We first meet with a description of that part of the Apennine chain which bounds Campania on the north and east, from the promontory of Gaëta to that of Minerva. The chapter concludes by a description of the island of Caprea, near this promontory. Though this chain is wholly calcareous, and consequently very uniform, yet it offers some appearances which will be interesting to the geologist.

In the second chapter M. Breislak examines the plain bounded by this chain of mountains and the Tyrrhenian sea, from the marshes of Minturno on the north, to the Sarno, which washes the southern boundary. This plain is wholly volcanic, and at every depth, as well as in every branch, it has all the characters of a country formed by the sea, which has removed the volcanic substances, and leveled them in a plain. The Volturno divides Campania in the middle; consequently the lavas on the north cannot have been brought from Vesuvius, nor the other craters in the south. This led our author to look for some extinguished volcano in the north; and it was situated, in his opinion, on what he calls Rock Monfino, from the city built on its crater.

The third chapter contains the description of this volcano, of its productions, of its primitive and secondary craters, and of the hills formed by its eruptions. Massica, whose wines were so much celebrated by the ancients, was a branch of the calcareous Appennine of which the volcano made a part, and was separated from the chain by its powers.

The fourth chapter contains an account of Mount Somma, the Vesuvius of Strabo, with a description of the ancient lavas which composed this mountain, and of the different rocks found in its valleys. Of every known volcano, this has furnished the greatest variety of lavas; and to the members of the Council, and of the School of Mines, we are indebted for a knowledge of many of these. In speaking of some substances found in the cavities of the lavas of this mountain in a crystalline form, such as calcareous spar and zeolite, he raises several doubts respecting infiltration, and supposes that this doctrine has been too much generalised, while nature in such formations has followed a different plan. These doubts are not, however, well supported; and we strongly suspect that, like some other mineralogists, our author has seen lavas where no volcanic fire ever existed.

The fifth chapter is confined to Vesuvius. M. Breislak gives a description of the mountain, the dimensions of its crater, and an account of the various currents of lava found at its base and on its surface. In speaking of the last current of 1794, which he had occasion to follow from its beginning to its end, he gives a curious account of this eruption, hitherto little known. He adopts the opinion of Dolomieu, which is not, however,

rendered very probable, that volcanoes have no communication with the sea.

In the sixth chapter the author collects all the physical and chemical phænomena of volcanoes, when in a state of rest, of gentle and mild action, and of violent paroxysms. Though these are vast and magnificent, the imagination of observers has often, in his opinion, exaggerated them. In speaking of lavas, he has avoided all systematic classification founded on uncertain hypothesis, and confines himself to the external form, which fixes well-marked limits, and ascertains a sufficient number of species. The modification of lavas by vapours 'animated by caloric' are too interesting, in his opinion, to be passed over without particular discriminations.

In the seventh chapter the author offers some conjectures on the cause of the inflammation of Vesuvius. It is the only systematic part of the work, and is confined to a few pages. We suspect, however, that this may be arranged with the other romances which have too often disgraced geology. Mr. Kirwan appears to us the only successful philosopher who has offered a system; and his success is owing to his having followed observers step by step.

The eighth chapter is confined to volcanic substances almost peculiar to Italy; and in the following ones we find a description of all the fiery mouths between Vesuvius and the shore of Cumæ. Some have been long since known, under the appellation of the Campi Phlegræi, as the Lake of Avernus, Mount Gaurus, &c.; but it is singular to find in a very small space twenty-seven volcanic openings of no inconsiderable extent. The most interesting of these, to a mineralogist and chemist, is the Solfaterra of Puozzoli, a volcano not yet extinct. He particularly explains the appearance of this district, and the saline substances which it furnishes. The gas of the Grotto del Cane, near the Lake Agnano, is a curious subject; and M. Breislak gives the result of numerous experiments made on this spot. Among others, he is peculiarly attentive to the experiments proposed by Bergman, and the phænomena of combustion, particularly that of phosphori; but on this subject he should have looked up to more modern, and, in this line, more experienced guides.

The fifteenth chapter contains a description of the isle of Ischia, of which Strabo and other ancient authors have given such extraordinary accounts. Almost all the naturalists who have visited this spot, remark that the volcanoes are so ancient that their craters are no longer distinguishable; but our author describes eight, of which several are so well preserved as to appear almost new, and are not very different in form from that of Vesuvius: but they must be sought for in the interior of the isle, at a distance from the coasts. M. Breislak gives some ac-

counts of the siliceous stalactites of Ischia, which are perhaps as interesting as those of Geyser.

The progress of geology requires a collection of facts. Naples is built round three craters, and Rome in the centre of another. This is the object of the appendix which concludes the work. The nature of the substances which compose the seven famous hills of Rome, their figure, and their respective positions, render this opinion probable; and in Virgil, as well as other ancient authors, M. Breislak thinks there are traces of this event, though concealed in poetical allegories.

The work is adorned with charts and plates. The first is a map of Campania, from a design which the author himself communicated to the geographer Zannoni: all the volcanic parts are coloured. The second is a plan of Vesuvius, on a scale so extensive as to discriminate the different currents of lava, marking the æras of those whose date is known. The third represents a singular crystallisation of copper, separated from zinc in a mass of pewter, enveloped in the lava of 1794. The fourth represents all the craters between Vesuvius and the Cumæan district. The fifth contains the plan, section, and elevation of a machine, by which the author raises water from the condensation of the vapours in the interior of Vesuvius, and the decomposition of the hydrogenous sulphurated gas, which together furnish a constant stream. The last plate is a philosophical (rather a mineralogical) plan of the city of Rome.

# *RETROSPECT*

OF

# FOREIGN LITERATURE.

## FRANCE.

*Physiologie Végétale, contenant une Déscription des Organes des Plantes, &c. Vegetable Physiology, containing a Description of the Organs of Plants, and an Explanation of the Phænomena produced by their Organisation. By J. Sennebier. 5 Vols. 8vo.* Geneva.—We had long proposed to give a full account of these valuable volumes, but more urgent calls have turned us to different subjects; and, as a great part of them must of course be collected from other works, many points have been occasionally noticed by us already: we no longer, however, delay giving an outline of their immediate contents, reserving our intention of enlarging on some of the more interesting and original portions.

The Vegetable Physiology is naturally divided into the anatomical and physiological parts. The first is necessarily descriptive, and preceded by some reflexions on the anatomy of plants. The author then gives—1 and 2. A description of the elementary and organic parts common to the greater number of vegetables; 3. That of the organs essential to the life and health of vegetables in general; 4. Of the organs of generation of the greater number; 5. Of the relations and differences between the cryptogamic and other plants; 6. Of the microscopic plants. The seventh section is preceded by a chapter on the application of the principles of chemistry to the vegetable physiology. The author then proceeds to the fluids furnished by plants in their state of health, and to the solid matters at such time discovered in them. These fluids are, lymph, the succi proprii, oils, nectar, aroma or spiritus rector: the solid parts are, gum, resin, the flowers of the leaves and fruit, fæcula, albumen, salts, and charcoal.

The second part contains more strictly the physiology of plants, or the history of vegetables in health. After some general reflexions, the author considers living plants, and examines the different substances which appear to have constant and determined relations with them, as the earth, manures, water, rain, dew, fogs, air, light, heat, and electricity. M. Sennebier

then treats of the evolution of the plant and its increase, following the general and particular effects: these are, the emission of buds, the extremities of shoots, the direction of the branches and roots, the foliation, the fall of the leaves, the sleep of plants, and the blanching of vegetables. He then passes to the means of re-producing plants, and speaks of their sexes, their fecundation, the fruit-buds, and their expansion; their efflorescence, the decay of the flower, species, hybrid plants, re-productions, grafts, &c. This section is followed by some reflexions on the fruitfulness of plants, and on monsters. In the following section M. Sennebier treats of fructification, and whatever concerns the maturity and the decay of fruits. This leads him to speak of forced vegetation, of the tastes, smells, and colours of plants.

In the three last sections M. Sennebier treats of the end of plants, of their duration and death. He examines several supposed properties of plants; viz. their irritability, motion, and sensibility; and concludes by some remarks on the life of plants, and by general reflexions on vegetables, on the habitation of plants, on trees and herbs, on the analogy of vegetables and animals, and on vegetables considered in a more general view.

Such is the present work which has been received with particular respect on the continent, and which will always command admiration. Several of the author's opinions are new or uncommon; and to these we may occasionally return. He has indulged them, as he thinks they may occasion some new inquiries, and conduct to truth.

*Déscription des Plantes nouvelles, &c. Description of the new and little-known Plants cultivated in the Garden of J. M. Cels. By E. P. Ventenat.* 4*to.* Paris.—This is the first fasciculus of a work which is designed to consist of twenty. The plants of M. Cels' garden are supposed to form the most beautiful and rare collection in Europe, if we except perhaps that at Kew. The present number contains ten plants. The first and second are mimosas; the third is the Goodnia ovata, a genus established by the president of the Linnæan Society; the fourth, the robinia viscosa, a large tree discovered by Michaux on the Allegany mountains in South Carolina; the fifth, gautheria erecta, is a new species of ancistrum, originally from Peru; the sixth, ancistrum repens, is a beautiful shrub from Peru; the seventh is a leguminous plant from Botany Bay, a new genus, named Bossiæa, from the unfortunate Bossieu-Lamartinière, who perished with La Pérouse; the eighth is a protea, also from Botany Bay—M. Ventenat places it in the genus embothrium, with the trivial name of salicifolium; the ninth is the iris imbriata, a beautiful iris from China; the tenth is from New Holland, malaleuca hypericifolia.

M. Ventenat's descriptions are peculiarly clear. Various avocations prevented us from giving an account of his *Tableau du Règne Végétal*, which contained an arrangement of vegetables in natural orders, improved from Jussieu, the most correct and scientific natural method that we have seen. Each plant in the present work is referred to its natural family in that system, and to its class and order in the sexual system. The particular description follows, as well as its country, the name of its discoverer, and the time it has been in M. Cels' garden. The designs are by Redouté, the engravings by Sellier and Plée, and the printing by Crapelet.

*Histoire Naturelle des Poissons, &c. Natural History of Fishes. Accompanied with* 160 *Plates. By René Richard Castel.* 10 *Vols.* 18*mo.*—As the great work of Block sells at a price equal indeed to its merit and magnificence, but greatly superior to what philosophers in general are able to pay, M. Castel has done good service by reducing the size and price. We have indeed the edition of Berlin in four volumes, 8vo. with two volumes of plates, viz. two hundred and sixteen in number; but this is not complete, and we strongly suspect that M. Castel's is only a re-publication of this part, which contains nearly two-thirds of the original, or somewhat more than half. The present editor has arranged the fishes according to the Linnæan system; which Block had designed, but never completely executed, though his arrangement is not very different. He has added a description of the different whales, which Block has omitted, with some curious remarks on fisheries in general, particularly that of the whale: the methods of extracting the oil, the spermaceti, &c. are subjoined. The chief design of this edition is to complete the Natural History of Buffon; and it corresponds, in every respect, with the small editions of that author's works.

*Histoire Naturelle de Buffon, Partie des Minéraux, &c. Buffon's Natural History of Minerals. To which are added, Observations and Discoveries of the most celebrated modern Naturalists. By E. M. L. Patrin. With* 40 *Plates.* 5 *Vols.* 12*mo.*—As we have already noticed the very accurate and elegant edition of Buffon's works now publishing by Sonnini, we have introduced this edition of the minerals, and may now mention also the edition of Buffon by La Cépède. The last is in 18mo., and has advanced to the nineteenth volume of general matter, and the ninth of the quadrupeds. M. Patrin's work is not however, as the title informs us, a re-publication only. The author's object is, to point out the relation between the different mineral substances of this globe, the history of our planet, the general structure of mountains, and the formation of metallic veins. This was the idea of Buffon; but he had not

the assistance of observation. M. Patrin has been long superintendant of the mines of Siberia, and is a very able mineralogist.

This work contains a description of minerals and their strata, the theory of their formation, their relation to geology, details of their properties and uses, their chemical analysis, &c. The author has added a memoir on volcanoes, which has been illustrated by many new discoveries since it was read to the National Institute.

*L'Ami de la Nature, &c. The Friend of Nature, or select Observations on various Productions of Nature and Art. To which is subjoined a Catalogue of all the Animals in the Ménagerie. By B. Toscan.* 8*vo.*—Many of these pieces have already appeared in the *Décade Philosophique;* but they are now published with additions and corrections. It is a pleasing little collection, and will be useful to the younger student both of the language and of natural history. On this account we shall transcribe the titles of the different essays.

1. General views of the study of nature; 2. The history of the lion of the ménagerie and of his dog, with the conclusion of that history; 3. An essay on botany in a moral view; 4. Calendar of nature; 5. New discoveries respecting bees; 6. Reflexions on the instinct of animals; 7. Fragment found in the library of the Museum of Natural History; 8. On the sleep of plants; 9. A memoir on the shrub of America which produces wax *(cirier)*; 10. Of music, and its power on animals; 11. Of music, and the tragedy of Nephté; 12 and 13. Accounts of the lives of Linnæus and Aldrovandus; 14. Catalogue of the animals in the ménagerie.

*Elémens ou Principes Physico-chymiques, &c. Physico-chemical Elements or Principles; intended as a Supplement to the Principles of Physics. By J. M. Brisson, Member of the National Institute, &c.* 8*vo.*—M. Brisson's philosophical principles were received, as an elementary work, with great respect: and in the present volume, equally elementary, the compilation, for it is no more, merits considerable commendation. Precision and perspicuity are chiefly necessary in an introductory system; and these qualities M. Brisson possesses in a considerable degree. His authorities are in general well chosen, and we find no useless appendages to distract the young student's attention.

Our author divides the elastic fluids into the vivifying and the suffocating, and treats of each in particular, under the titles of gas not saline, saline and inflammable or hydrogenous gas. He next considers what he styles simple substances, as caloric, oxygen, azote, &c. In the mineralogical part he first treats of the primitive earths, and divides the stones into four orders;

viz.—1. Saline stones; 2. Stones properly so called; 3. Rocks; 4. Volcanic productions. In the section of metallurgy he speaks of metals and semi-metals; and to that which treats of acids and alkalies is added a table of all their known combinations. The last articles of this work are, on the division of bodies, the crystallisation of salts, fermentation, and the physical properties of fire and *cold*. We cannot highly commend our author's arrangement; and, indeed, in every chemical work the arrangement is too artificial. Our views are now so far extended as to admit of a natural classification of the subjects of chemistry; but this is not the proper place for the diquisition; we may on another occasion resume it.

*Nouvelle Médecine Domestique, tirée des Végétaux de France. New Domestic Medicine, from the Vegetables of France. By J. P. Buchoz. 2 Vols. 12mo.*—We have styled M. Buchoz the sir John Hill of France; and he is eager to establish the resemblance. Three hundred and fifty diseases are cured by the indigenous plants of France! We never knew that so many existed, and regret only that we did not find anarchy and Jacobinism among them. The diseases are arranged in alphabetical order, and the plants according to their virtues: the names of those introduced into the Pharmacopœïas are subjoined to those of the species, and the names of the indigenous plants that may supersede the use of exotics are also added.

*Aimans artificiels du Cit. Le Noble, &c. Citizen Le Noble's artificial Magnets, or the Means of curing one's self in various Disorders of the Nerves by the Application of those Magnets. By Luneau de Boisjermain. 18mo.*—Quackery is confined to no region; but a piece of metal may be as efficacious in the hands of a practitioner of one country as in those of another—in Europe as in America. Andry and Thouret support the credit of this plan by authenticating the cures; and some names of no little respectability, from among the members of the National Institute, are added. The principal diseases supposed to have been cured are, inflammatory and nervous pains, spasms, convulsions, vertigo, and hypochondriasis.

*Dissertation sur la Fièvre Angisténique Inflammatoire. Dissertation on Angistenic Inflammatory Fever. By J. Aygaleuque, M. D. 8vo.*—The author has followed the analytical plan, and discusses in a superior style, though very concisely, every point of his subject. He is attached to the doctrines of Hippocrates and Stahl, and depends on observation and management rather than on active remedies. He equally rejects the humoral pathology; and his reflexions on the consideration of the blood in inflammatory diseases merit considerable attention.

*De la Peste, &c. On the Plague, or the memorable Epochs of that Calamity, with the Means of avoiding it. By J. P. Papon. 2 Vols.* 8*vo.*—The author treats his subject rather as a historian than as a physician; and, aiming at novelty, on the causes and origin of the plague, he is plausible, though superficial, and sometimes ridiculous. The second volume is terminated by a chronological history of the various returns of the plague, previous and subsequent to the Christian æra. His methods of preserving from the disease those exposed to its influence are more judicious, as they are the result of experience and observation.

*Recherches et Découvertes sur la Nature du Fluide Nerveux, &c. Inquiries and Discoveries respecting the Nature of the Nervous Fluid or Vital Spirit, and respecting the Manner of its Action, after new and exact Experiments by Professor W. Le Febvre.* 1801.—This singular work, professing to have discovered the nature of the nervous fluid and its mode of action, greatly excited our curiosity; and we proposed being the earliest among the English journalists to announce its theory. On a nearer acquaintance, as usual, our ardor cooled, and we began to suspect that the discovery would not bear the test of rigid scrutiny; so that we shall only notice the outline. By an apparatus resembling the pneumatic, M. le Febvre found the brain, the medulla spinalis, and semen, to contain inflammable air mixed with carbonic acid. In women, the seminal and nervous organs contained the same air; and the same parts of different animals contained inflammable air of different specific gravities. The inflammable air, then, is the nervous fluid, and it appears to be changed in the progress of disease. The author next examines its connexion with the nerves, its action, &c.; but the conjectures in this part are crude and trifling; and he neglects the only confirmation, viz. the changes produced on the nerves by different chemical substances. Should their habitudes prove the same with those of inflammable air, he would have advanced one step nearer his object. This, however, he has not done; and, notwithstanding the appearance of accuracy, the whole rests in nearly the former state of uncertainty.

*Abrégé d'Anthropographie; &c. Abridgement of Anthropography, or an exact Description of all the external Parts of the Human Body.* 8*vo.*—This abstract of anatomy is a trifling performance, as the author confines himself to his subject without engaging in any dissertations on the animal œconomy, or the laws which influence the principal functions of the different parts; and his anatomical disquisitions pretend not to superior accuracy or any important discovery. The head, the trunk, the superior and inferior extremities, and the skin, are described in as many chapters; which are subdivided, according to the different portions of which each consists. The work is concluded by a dictionary of

technical words and of authors, and, on the whole, though it possess no scientific profundity, may occasionally be useful to students in anatomy.

*Traité des Différences et des Séries, faisant suite du Calcul différentiel, et du Calcul intégral. Treatise on Differentials and Series, being a Sequel to a Treatise on the differential and integral Calculus. By S. F. La Croix.* Paris.—This very laborious and active writer had scarcely finished his extensive work on fluxions* when he put another into the press on the differential method. The style, plan, and arrangement, are nearly the same as in the former work. He generalises from the beginning; and, to comprehend him, a person must have made a considerable progress in the mathematics. The common and accustomed system among ourselves of teaching the differential method seems far preferable. We first take a series of numbers which admit of two or three series of differences; we show by an easy method how one series arises out of another; and we arrive at last at a series expressing any order of differentials: thence we carry the learner into more difficult problems, to the methods of interpolation, &c. In the plan before us the beginner is thrown at once into general reasoning, and is seldom relieved by an example, to make the subject clear to him. Yet if this work be of little use to a learner, it may be very advantageously consulted by a teacher, who will find in one volume collected together almost every thing that has been written of importance on the differential method by the best masters. The table of authors consulted shows not only the erudition of the writer, but is very useful to a reader who wishes for the best information.

*Cours d'Arithmétique, à l'Usage des Ecoles centrales, et du Commerce. Course of Arithmetic, for the Use of the central Schools, and of the Compting-House. By Thévéneau.* 8*vo.*—The common rules of arithmetic are taught in this work in a very prolix manner, and the examples are taken from the new weights and measures in France. On the latter account it will be useful in that country, but of little importance in any other.

*Introduction à la Philosophie de Platon, &c. Introduction to the Philosophy of Plato. Translated from the Greek of Alcinoüs by J. J. Combes Dounons.* 8*vo.*—The authenticity of the work of Alcinoüs has been well ascertained by Fabricius in the fourth volume of the Bibliotheca Græca, and from his authority M. Combes was induced to translate it; but of the work itself it is unnecessary to give an account. The translation seems to be accurate and faithful. A dissertation of Maximus Tyrius on this question, 'What is God according to Plato?' is subjoined, and will not be an unsuitable commentary to the text of the philosopher.

* See our XXIXth Vol. New Arr. p. 493.

*La Théologie naturelle, &c. Natural Theology, &c. or the Thoughts of a Man on the Supreme Being, and on the Nature and Immortality of the Soul. By G. Tarenne.* 8*vo.*—A scion from the stock from which so much absurdity and infidelity have overspread the neighbouring nation. There is nothing so absurd in the most despicable religious system that a modern philosopher will not swallow in support of his own code. Of all the ridiculous nonsense of reformers, we have seen nothing worse.

*Fragmens sur les Institutions Républicaines, &c. Fragments on Republican Institutions; a posthumous Work of St. Just, Member of the Committee of Public Safety.* 12*mo.*—The name of the infamous St. Just has already condemned this work in France; and, to give a fuller idea of its nature and tendency, we shall add a few of his propositions.

'Good itself is often the means of intrigue: let us be ungrateful, if we will save our country.

'Vulgarity is a kind of resistance to oppression.

'A republican government has virtue, *at least terror*, for its principle. What will those do who like neither virtue nor terror?

'Opulence is infamy.'

We ought to add, that St. Just's title to this work is by no means clear. To attribute it to him, however, elucidates the present opinion of that famous Jacobin.

*Voyage de la Propontide et du Pont Euxin, &c. Nautical Tour through the Sea of Marmora and the Black Sea; with Charts.* 2 *Vols.* 8*vo.*—The principal object of the present traveler is to give a faithful and minute account of Constantinople and its environs. The difficulties in his way were in a great degree removed by the French embassador at that time at the Porte, M. Choiseul Gouffier; which marks the æra of the voyage, and places it from about ten to fifteen years since; but in the work itself no trace of a date is to be found. The present volumes contain—1st. A description of the Propontis, with an account of the Plain of Brusia in Bithynia, and a chart of the Hellespont; 2dly, That of the Thracian Bosphorus, with a topographical detail of its shores; 3dly, A view of the ancient monuments of Constantinople, such as its gates, walls or towers, cisterns, light-houses, the old port, the forum, the hippodrome, virginal and triumphal columns of Theodosius, Arcadius, Marcian, &c. This part concludes with an abstract of the conquest of Mahomet. The fourth part relates to its modern monuments; such as the mint, the hall of audience of the grand-signor, the palace of the vizier, arsenals, taverns, coffee-houses, opium-shops,

baths, khans, basars, hospitals, public schools, church-yards, churches, mosques, suburbs, &c. The greater part of these descriptions, we perceive, however, are taken from Gibbon, Cantemir, La Croix, &c. The most interesting part is the fifth, viz. Geographical observations on the Euxine Sea, by colonel Lafille, communicated to the author by Monnier the present sub-director of the fortifications of Geneva. This part is concluded by general observations on the Black Sea, and on the means of defending Constantinople on the side of the canal from this sea. The work is illustrated by six charts: 1. Of the Sea of Marmora; 2. Of the Straits of the Dardanelles; 3. Of the city of Brusia, drawn by the author in 1786; 4, 5, and 6. Of the Thracian Bosphorus, the Black Sea, and Constantinople. In short, this work contains little original matter; and that little is not of importance.

*Rélation de l'Embassade Anglaise envoyée en* 1790 *dans le Royaume d'Ava, &c. Account of the English Embassy to the Kingdom of Ava, &c. from the English of Major Symes. With Notes. By J. Castera.*—We should not have noticed a translation from the English, except on account of some important additions. We may however observe, that the translation is clear and faithful; the charts and engravings neatly and accurately executed. The translation of the botanical part is by Ventenat.

At the end of the relation we find an account of a voyage to Columbo and to the Bay of Lagoa, which acquaints us with a part of Africa hitherto little known. It appears, from M. Castera's statement, that the possession of the Isle of France will, at a future period of tranquillity, enable our enemies to secure the whale-fishery, carried on at present by the English and the Americans; and this circumstance it is of importance to render public.

The translator has added a short description of the Island of Carnicobar, and the manners of its inhabitants, with some observations on the ruins of the ancient city of Mawalipouram. The first has a considerable connexion with the Birmans, and the latter contains some important details which illustrate their manners and their language.

*Catalogue d'une Collection d'Empreintes en Soufre de Médailles Grecques et Romaines. Catalogue of a Collection of Impressions in Sulphur, from Greek and Roman Medals.* 8*vo.*—We should not have noticed a mere catalogue, but that our author's object is of a superior kind, and is meant to give specimens of the different legends and impressions without engaging in the more minute and useless distinctions. The present collection contains about fifteen hundred impressions; but the author proposes to increase it to ten or twelve

thousand. When complete, it will be equally useful to the scholar and the artist.

The order is that of Eckhel in his *Doctrina Nummorum veterum*; that is, a geographical one respecting the provinces, and alphabetical so far as regards the cities of each province.

*Déscription d'un Camée au Cabinet des Antiques à la Bibliothéque Nationale, &c. Description of a Cameo in the Cabinet of Antiques at the National Library. By A. L. Millin.* 12*mo.*—This cameo is known by the appellation of the 'Conquerors at the Race.' It is a sardonyx with a black ground. The relief is of a beautiful white, excepting a reddish line which distinguishes in a pleasing manner the crupper of the most obvious horse. M. Millin thinks it of Roman workmanship, at the time of Caligula, who was equally fond of these ornaments and of the games in the circus.

*De la Litérature considerée dans ses Rapports avec les Institutions Sociales. Literature considered in its Relation to social Institutions. By Madame de Staël Holstein.* 2 *Volumes.* 8*vo.* — We shall permit this lady to introduce herself and her work. She 'believes that it has not hitherto been considered with philosophical precision, how the faculties of mankind are gradually developed by the valuable works which have appeared since the age of Homer.' In an introduction of fifty-six pages, literature is examined in a general way, in its relations to virtue, glory, liberty, and happiness. Virtue, according to this descendent of the unintelligible Necker, is the ideal beauty of the moral world, and genius the faculty of seeing well. Military genius she thinks dangerous in free states, and a professional spirit is somewhat related to that of priests. We should, however, be tempted to believe that there is a difference between the motive and the end, and that this difference should modify the opinion we form.

The work is divided into two parts; the first containing 'A *moral* and *philosophical* analysis of Greek and Latin literature;' the second, 'A state of the information and literature of France since the revolution.' The four first chapters treat of the earliest æra of the literature of the Greeks, their tragedy, comedy, philosophy, and eloquence. The three following relate to the literature of the Romans in the times of the republic and of Augustus, down to the reigns of the Antonines. The eighth chapter is on the invasion of the northern hordes, the establishment of Christianity, and the revival of learning. The last eight chapters are employed on Italian, Spanish, English, German, Danish, and Swedish literature, and the fault imputed to the French authors of wanting taste. The ensuing chapters are on tragedies of Shakspeare, and on the humour, imagination,

and eloquence of the English. The last chapter of this part is on German literature. 'Werter,' according to our author 'is the principal work of the Germans. The Messias of Klopstock contains beauties of the first order, mixed with an innumerable crowd of faults, with prolixity, mysticism, and obscurity. The beauties of the tragedies of Schiller show a strong mind. There are no doubts of the merits of Wieland, Gessner, Gœthe, and others; but in general the Germans want taste naturally, and they want it also by imitation.'

In the first three chapters of the second part, the author inquires into the reason why the French nation have evinced more grace, taste, and gaiety, than any other people in Europe; and these are supposed to be the immediate and necessary effects of monarchical manners and institutions. The two following chapters treat of literature during the reign of Lewis XIV., and of the eighteenth century, to the year 1789. In the other chapters the author examines the taste, the urbanity of manners, the literary and political influence, as well as the emulation, of women who cultivate letters. This, of course, will be expected to be an apology in their favour, or rather a dextrous encomium. The remainder of this singular but not very valuable work is on works of imagination and philosophy, the style of authors, that of magistrates, and on eloquence.

*Eloge Historique de Lazare Spallanzani. Historic Eulogy of Lazzaro Spallanzani. By J. L. Alibert.* 8*vo.*—We lately noticed, at some length, a life of Spallanzani, prefixed to one of his essays by M. Tourdes. We shall not therefore examine particularly this before us. It is enough to observe that M. Alibert engages more in the detail of the labours of the naturalist, particularly his experimental inquiries, and appears to have given, on the whole, a more distinct view of Spallanzani's genius and discoveries.

*Corréspondance de Louis-Philippe-Joseph d'Orléans avec Louis XVI., &c. Correspondence of the Duke of Orléans with Lewis XVI., the Queen, &c. By J. C. R.* 8*vo.*—This work is not a life of the infamous duke of Orléans, nor the history of his party, but a collection of authentic papers, of which the publisher possesses the originals. These memorials will illustrate, in a great degree, the history of the revolution, and the conduct of Philip. Even in 1790 the king suggested to him the probability of becoming the sovereign of Belgium. About the time of his mission to this kingdom, we find the following singular passage: 'If it be the fate of Belgium to have a monarch, the person on whom the choice shall fall must be agreeable to the king (Lewis), and the duke will perceive it to be possible that

the result may be favourable to him.' We now know the foundation of the hint; but it may have influenced the duke's conduct; and the apparent duplicity of Lewis may have at last so greatly irritated the duke. His connexion with madame de Sillery seems, from a long letter of the duchess, to have been the principal cause of the domestic dissensions between Philip and the latter. His desire of being revenged, chiefly on account of the queen's contemptuous slights, appears to the editor to have occasioned his rancor against Lewis; but the veil is not yet sufficiently removed.

These letters are not all equally interesting; but the greater number are so, particularly those of the king and M. Montmorin, with the duke's answers. The abbé Fauchet demands twelve hundred francs for the funeral sermon on his father. The first part of the collection contains the correspondence between Philip and Lewis, and between the former and the different ministers. The second contains the letters of his family. The last relates to his opinions, his connexion with the family of Sillery, his political conduct, his reception among, and his discourses to, the Jacobins.

*Ardinghello, ou les Isles de la Félicité, &c. Ardinghello, or the Fortunate Islands, an Italian Story of the Sixteenth Century, translated from the German.* 12*mo.*—We do not frequently notice romances; but this before us seems to be novel in its plan, and ingenious in its execution. Its object is to describe the *chef d'œuvres* of the great masters of Italy and ancient Greece, which France has now acquired, as they say, by *right of conquest*—history may substitute, *plunder*. We shall add a meagre outline, and recommend the work itself (for the story is only the vehicle) to the consideration of readers of taste.

Frescobaldi, proscribed in his own country, travels over Italy under the name of Ardinghello. Well acquainted with, and enthusiastically admiring, the arts, he examines and describes the various works of Raphaël, Correggio, Michaël Angelo, &c. He visits the most celebrated galleries, and his criticisms are new, poignant, and judicious. These criticisms, which however form a large portion of the work, are relieved by the adventures of Ardinghello. They are not of the splendid or surprising kind; but the scenes are natural and pleasing—neither void of interest, nor perhaps of instruction.

*Entretiens sur la Pluralité des Mondes, &c. Discourses on the Plurality of Worlds; by Fontenelle; with Notes, by J. de Lalande.* 18*mo.* Paris.—For more than a century has Fontenelle been read and admired, has excited applause—more often wonder; and the description has stood still while science has advanced.

Lalande has added what has been since discovered, but has not rashly dared to alter the text—*vidit et abstinuit*. An abstract of the life of Fontenelle, who died in 1757, at the age of near one hundred, is prefixed; and an historical account is appended of all the writers who have adopted the idea of a plurality of worlds, from Orpheus and Pythagoras to the author of a tract published in the *Nouvelles de la République des Lettres*, in 1684, from which Fontenelle seems to have borrowed his plan.

To consider this globe as chiefly adapted for the habitation of men, is, in the editor's opinion, 'reasoning on confined principles equally unphilosophical and presumptuous.' He seems to regard this world as a mass of atoms, which can scarcely interest the immensity of the whole. On this subject we wish not to enlarge. If pursued, it leads to deism, perhaps to infidelity; and the idea itself is equally presumptuous and unphilosophical with that to which it is supposed to relate. To conceive that the other planets are inhabited because this is so, is speculation only. We cannot advance a step in its support or refutation. It is a pleasing and becoming speculation, adorned with all the charms of Fontenelle's simple eloquence.

*Les Quatre Satyres, &c. The Four Satires, or the Close of the Eighteenth Century. By Joseph Despaze.* 8*vo.* Paris.—Our author aims his satire against those musicians who are fond of pathos and noisy execution; against the extravagance of French actors; against the 'men of letters' in France, a very considerable body; against the manners of the times; and against parties. His lines are easy and pleasing, seldom animated or poëtical. We shall transcribe his profession of faith.

'L'ami de la vertu, dans les tems où nous sommes,
S'il souffre de leurs maux, doit opposer aux hommes
Les reproches sanglans, plus que les traits railleurs:
Il faut les diffamer, pour les rendre meilleurs.'

It is evident that his prototype is Juvenal rather than Horace; but he follows him with unequal steps. The contrast is too striking to be pursued with pleasure.

## GERMANY.

*Archiv für die Botanik, &c. Archives of Botany, published by J. J. Rœmer. Vol. I. and first Number of Vol. II.* Leipsic.—We notice this periodical collection, because it has not before occurred to us. It would be useless to detail the contents. They are taken often from different works and the transactions of learned societies; but we perceive also some original memoirs. The selection seems on the whole judicious.

*Gesneri J. Tabulæ Phytographicæ, &c. Gesner's Phytographic Tables, exhibiting an Analysis of the Genera of Plants. Published with Notes, by C. S. Schintz. Folio.* Zurich.—Seven fasciculi only of this new edition of the indigenous plants of Gesner are yet published; but the editor has attempted to unite every advantage and every perfection of which a work of this kind is susceptible. The descriptions are clear and distinct, the plates correct and beautifully coloured after nature, so that this appears to be one of the most elegant and correct of any botanical work yet published.

Many authors have furnished the editor with valuable information and materials; and the order is very convenient. Each plant is distinguished by its Linnæan, its German, and officinal appellations, together with its native country. For the indigenous plants of Switzerland, the order of Haller, in his Nomenclator, is preserved. The times of collecting are pointed out; their forms, their external qualities, and their constituent parts are described, together with their medical and diætetic virtues, and the various methods of preparation.

Each fasciculus contains three or four coloured plates, and four sheets of text in large folio, on vellum paper. Every plate is divided into eight or ten departments, each containing a separate figure.

*Species Astragalorum, &c. The Species of Astragali described, and illustrated with coloured Plates. By P. S. Pallas. Fasc. I—IV. Folio.* Leipsic.—Botanists have hitherto been acquainted with scarcely fifty species of astragali; but, from the discoveries of Pallas and other naturalists in the dominions of Russia, the number now exceeds one hundred. These plants, notwithstanding their general resemblance, possess such differences as to render an exact classification necessary; and, as few naturalists have been in a situation to observe so great a number as M. Pallas, so there were few equally capable of classing them.

In his preface he quotes the works which he has consulted; but in the list we find few of the later publications, which his absence in the Tauride would not permit him to be acquainted with. He divides all the astragali into six families, which differ in their external forms. These are—1. tragacanthoïdei; 2. alopecuroïdei; 3. onobrychoïdei; 4. anthylloïdei; 5. polypterophylli, or verticillares; 6. sesamoïdei. Botanists will perceive the nature of these classes from their names; the descriptions can only be read in the work itself. This arrangement is a very extensive one, and will admit a very numerous catalogue of species. The drawings were made from the fresh plants; and the press work is executed with great neatness.

*Neue Annalen der Botanik. Annals of Botany, published by Dr. P. Usten. Number XVII. with a Plate.* Leipsic.—We mention the Annals for the same reason that we noticed the Archives of Botany, because we have had no opportunity of announcing what we think an excellent journal. Its object is to collect original memoirs, abstracts of voluminous works, accurate copies of small pieces little known, and the various advertisements on the subject of botany. The third object is extremely important, and is too much neglected in journals. We have two instances in the present number; viz. Cavanille's 'Icones et Descriptiones Plantarum quæ haud sponte in Hispaniâ crescunt, vel in Hortis hospitantur,' and the Linnæan president's 'Tentamen Botanicum de Filicum Generibus dorsiferarum.'

In turning over this number we were particularly struck with an article 'on the germination of plants in the oxygenated muriatic acid, by F. A. de Humboldt.' The experiments were made at Vienna with seeds kept from ten to fifteen years, which, though frequently sown, never germinated till they had been previously moistened in the oxygenated muriatic acid. We have indeed found M. Humboldt so hasty in his conclusions, that we do not *implicitly* depend on them.

*Deutche Ornithologie, &c. German Ornithology, or a Natural History of all the German Birds, drawn from Nature, and described by Barkhausen, Lichthammer, and Bekker. No. I.* Darmstadt.—M. Barkhausen is well known by many works of merit in natural history. This, his first essay in ornithology, unites taste and elegance of expression to the solidity and accuracy of science. The number before us is the first of the present publication, and it contains six coloured plates, with as many pages of text. The plates represent—1. the falco peregrinus; 2. oriolus galbula; 3. colymbus glacialis; 4. ardea purpurea; 5. tetrao rufus; 6. turdus roseus. The description of each bird is accompanied by the principal synonyms; the character of its species and varieties; the peculiarities of its note, if there be any; its habitation, nourishment, and propagation; the method of taking it, and its utility, or the mischief which it occasions. We find also in the Latin language the specific difference and the description, indeed a short abstract of whatever the German text contains.

*Archiv für Zoölogie und Zoötomie. Archives of Zoölogy and Zoötomy. By C. R. W. Wiedemann. Volume I. Part I. 8vo. Plates.* Berlin.—This periodical publication is designed to communicate the discoveries made in Germany and other countries, and to give copious extracts from works of merit, which, from their price, are beyond the reach of many naturalists. It begins with two Memoirs on comparative anatomy, by M. Winkelman. These are followed (3) by a comparative description of the skulls of each genus of quadrupeds by the editor. 4. and 5. A de-

scription of the skeletons of an armadillo and sloth. 6. On the digestive organs of the ai, another species of sloth; with some observations on rumination, by the editor. 7. Advertisements of new zoölogical works.

*Journal sur Medizin, &c. Journal of Medicine, Surgery, and Midwifery, particularly with respect to the Causes and Symptoms. By a Society of Physicians, under the Care of Dr. J. F. S. Posewitz, Professor in Gressen. Number I. and II.* 1800.—The cases recorded in these two numbers are not very important; and, in the reviews of the medical works subjoined, we can neither commend the choice of the publications which have attracted the attention of the society, nor often agree with them in their opinions.

*System der Practischen Heilkunde, &c. A System of the Practice of Medicine, adapted for Lectures and practical Use. By Christ. W. Hufeland, Professor at Iena. Volume I.* 8vo.—The author, now physician to the king of Prussia at Berlin, is not unknown to the practitioners of this country. Several of his works have appeared in our language, and have been received with respect. This first volume contains the general doctrines, comprising what, in the schools, have been called the institutions of medicine; and, though on the whole we consider the work so far as highly valuable, yet it abounds too much with minute, sometimes with useless, distinctions. We have occasionally also words substituted for ideas. Dr. Hufeland, in his language, and at times perhaps in his opinions, appears to lean towards the jargon of Brown, whose system on the whole he often reprobates. As we may expect to see this work in an English dress, we shall not at present enlarge further on it.

*Henrici Aug. Wrisbergii Commentationum Medici, Physiologici, Anatomici, et Obstetricii Argumenti, &c. The Medical, Physiological, Anatomical, and Obstetric Institutes of H. A. Wrisberg, presented to and published by the Royal Society at Göttingen. Volume I. Plates.* 8vo.—It does not appear that the author consented to this collection of his detached memoirs, presented to and published by the Royal Society at Göttingen, in their Transactions; for they are thrown together without any order, either chronological or scientific. Yet one tract is added, never before published, and three plates illustrating the fourth memoir, representing eminences like those from the small-pox on the internal surface of the trachea and lungs, the pericardium and pleura. We need not copy the titles, which would give very little information; and shall prefer some remarks on the last treatise, of which however we receive only a part. It is on the gastric nerves, or rather the first continuation of the observations on the ganglion and the semi-lunar plexus, the subject of the tenth memoir. The organs of the abdomen are divided into

the cœliac and mesaraïc, the renal and genital systems; each pair resembling each other. The cœliac differs, however, from the mesaraïc by its receiving blood from one artery only, and by lying under the diaphragm, as well as by its office of secreting the digestive fluids and the nutritive matter. It receives nerves from the par vagum, and its affections greatly influence the state of the other organs. The left part of the stomach receives a larger proportion of fibres from the par vagum than the right, and consequently sympathises more with the lungs, the pharynx, the trachea, and the tongue, while the right is more nearly connected with the intercostal nerve, and of course with the liver, duodenum, and pancreas. The cardia has more numerous nerves, and therefore its sensibility is more acute. All the nerves terminate in the villous coat. The inner side of the stomach has a larger proportion of nervous fibrils than the outer, and the little curvature more than the greater. The omentum has very numerous nerves, but they are extremely small. The nerves of the cœliac system are divided by our author into the gastric, the omental, hepatic, pancreato-lienal, and pancreatico-duodenal.

*Genius der Gesundheit und des Libens. Genius of Health and Life. A Pocket-Book for Physicians and others, for the Year* 1801. *By J. C. Killian, M.D.* Leipsic.—This is a publication designed to be continued annually; and it may be interesting in Germany, though not well calculated for the meridian of England. The first article is a philosophical one, and treated somewhat abstrusely, entitled 'the latest theory of medicine;' but it is miscalled and misplaced. The second is entitled 'fragments of a domestic materia medica.' The author means to include all the domestic remedies in the succeeding publications, but confines himself to milk and eggs in the present number. 'Some diætetic observations and precautions for smokers' are delivered with much humour, and are well adapted for a country where smoking is so common. Two medical observations are added: one on the effects of bathing in rivers, which seems sometimes prejudicial; the other on the use of red wine diluted with water, with the addition of spice, &c. in hæmoptoë.

*Beitrage zur Medizinischen Klinik, &c. Observations on Clinical Medicine; made in a Journey to Germany, Switzerland, and France. By E. Horn. 2 Vols.* 8*vo.* Brunswic.—The first volume of this work contains observations on fevers. The author, who is a follower of Brown, inquires minutely into the pathology and practice, and, in the detail of the new doctrine on the nature and differences of fever, examines the reason of fevers having been divided into so many different species, many of which are not really febrile. The ninth and tenth chapters inculcate the necessity of treating fevers according to their periods,

and the impossibility of adopting a general practice. The other chapters contain inquiries into the nature of the sthenic fevers complicated with local affections, on asthenic fevers, and on fevers from the first degree of debility to those in which the prostration of strength is extreme. The symptoms are detailed with some accuracy, and the primary distinguished from the secondary symptoms. The treatment is regulated by experience, and the result of the application of different remedies. We cannot highly compliment the author on his success in this part. He has multiplied fevers as unreasonably as Galen himself; and his treatment is not directed with a judicious precision.

The second volume relates to chronic diseases; and the author inquires how far the theory of the alteration of the fluids is applicable to the nature and treatment of chronic complaints. He then proceeds to a critical examination of metastases, of the suppression of secretions, and on their influence in the treatment of chronic maladies. He descants also upon plethora and infarction of the viscera, with their respective influences. M. Horn next adds some critical observations on the complication of chronic complaints with excess of sensibility and irritability, and an investigation into the theory of these same complaints, with a view to their nature and treatment. We adjoin the author's classification, which is too theoretical and minute for general application. 1. Chronic diseases of simple debility. 2. Of debility combined with disorganisation. The first is again subdivided into diseases: 1. Of general and uniform debility; these are very rare: 2. Of general, united with local, debility of one or more organs; such are hæmorrhages, dropsies, apoplexies, convulsions, &c.; 3. Of local debility of particular organs. The whole is concluded with the prognostic and method of cure.

*Beitrage für die Zergliederungs Kunst, &c. Anatomical Memoirs. By H. F. Isenflamm, and J. C. Rosenmüller.* 8vo. *With Plates.* Leipsic.—We have yet seen but three numbers of this collection, and are in general well pleased with the author's judgement; and think this publication will become truly important and useful if the same judicious discrimination continues to prevail. We particularly notice Scherer's fragments on the history of the teeth; some striking differences between the right and the left side, by Isenflamm; an account of a deformed infant, by Wiedemann; a dissection of a sepia, by Tilesius; a memoir on the brain and the nervous system, by the same author; observations on the tendons, by Isenflamm; and observations on the organs of voice in birds. Some of the articles are of a less general nature, and might perhaps have been omitted without any great loss; particularly what relates to the organisation of the anatomical institute at Wurzburg, and the anatomical theatre at Leipsic.

*Beschreibung und Gebrauch einer allgemeinen Himmelskarte, &c. Description and Use of a new Celestial Chart, accompanied by a transparent Horizon. By J. E. Bode.* Berlin.—This beautiful chart was engraven for the seventh edition of the veteran and respectable author's 'Introduction to the Knowledge of the Starry Heavens,' and is of equal service to that publication, with a celestial atlas. It at first appeared of ten (Rhinlandic) inches in diameter; but the author, always zealous for the propagation of astronomical knowledge, has increased it to twenty-three inches. It is augmented and rectified in many respects; and though it contain but a few more stars than the atlas of Flamstead, it comprehends nearly the whole of these, and many of the southern stars of De la Caille, from the first to the sixth magnitude. The sizes are marked by different characters; and the extremities are distinguished, in the manner of Flamstead, by dotted lines, to recognise them more easily.

The great object of the author is to represent on the largest surface almost all the stars visible in Germany, according to their respective situations, and without separating the figures. This plan affords not only easy methods of knowing the stars and resolving spherical problems; but, by means of the transparent horizon placed on the chart, the position of the stars, relative to *his own* zenith and *our* horison, for any given time, may be ascertained. The horison we perceive is calculated for Berlin; but, on examination, we find, allowing for some very minute differences, it will represent the state of the starry heavens for almost the whole of Germany and Great-Britain. Indeed, with the assistance of a good astronomical treatise, and some oral instruction, this chart may supply the place of a celestial globe.

The new constellations are distinguished by a stronger outline: such are the telescope of Herschel; the harp of George (proposed by Hell); the log-line; the honour of Frederic; the rein-deer; the guardian of harvests (proposed by Lalande); the quadrant, by means of which Lalande has collected a list of fifty thousand stars; the aërostat, between the feet of Capricorn; the printing-press, to the south of the unicorn, and to the east of Sirius;—the first proposed by M. Lalande, and the second by M. Borde, at their interview at Gotha in 1798 (whither, by the way, Lalande was sent to convert the German astronomers to the French calendar and measures; but, wanting the *ratio ultima*, failed; M. Borde telling him plainly, that the French were so unpopular in Germany that no proposal from them would be adopted); lastly the cat, which first appeared in the Ephemerides of Zach in 1799.

*Monatliche Correspondenz zur Beförderung der Erd-und Himmels-Kunde, &c. Correspondence relative to the Astronomical and Geographical Sciences. By Zach.* 8vo. Gotha.—Journals are so commonly the vehicles of new information in France and Germany, that, since we have possessed more extensive limits,

we have given a sketch of the object and execution of the more important ones, without intending to pursue these accounts, unless induced to do so by their originality or value. The present journal is almost unknown in this country, though highly important in many views; and we shall state some particulars of the two first numbers of the year 1801, which lie before us.

In the number for January, the first article is an account of the Isle of Cuba, extracted from the *Viagero universel.* 2. Of the city of Cairo and its environs, from a description of the pyramids of Ghiza by Grobert. 3. Extract from an astronomical journal of a journey to Celle, Breme, and Lilienthal. 4. An account of the bay of Lagoa on the eastern side of Africa. 5. Of the influence of the wind on the mean height of the barometer, by J. C. Burkhart. 6. On the means of penetrating space by telescopes, by Herschel. 7. On the power of prismatic colours in heating bodies, by the same. 8. Memoir on the method of discovering the longitude at sea by lunar observations, by D. F. Lopez Hoyo. 9. On the observations of latitude and longitude at sea, by D. Diego Alcara-Galiano. 10. An account of M. Lœwencœrn, with his portrait.

The number for February contains: 1. A continuation of the astronomical journal. 2. An account of Brest and the Isle of Ushant, from a journey to Finisterre. 3. On the manner of describing the situation of mountains, by M. de Muffling. 4. On the annual declination of the magnetic needle at Paris, by Burkhart. 5. The geographic longitudes of La Pérouse's voyage rectified by astronomical observations, by P. Triesneker. 6. Literary and astronomical news from professor Properin of Upsal. 7. On the modern progress of the Portuguese in astronomy and geography, on the observatory at Coimbra, on the works of Pedro Nunnez, and on a Portuguese MS. found in a library at Hamburg, communicated by M. d'Anjo d'Azevedo.

*Beitrage zur Geschichte der unbekanntern Reiche in Asien und Afrika, &c. Memoirs subservient to the History of those States of Asia and Africa which are less known. By G. de Breitenbanch. 2 Vols. 8vo.* Weimar.—The author is well known by many historical works, which have been well received, particularly by the additions to the history of Asia and Africa. The present volumes are designed to throw some light on the more secluded parts of these countries; and the peculiar information which has been communicated to him gives us some confidence in what he relates. The first volume contains the history of the Druses, a people of Asia, with some observations relative to the history of Persia, Ava, Pegu, Malacca, Ceylon, &c. The second volume contains historical information on the Malacca Islands, Ternate, Macassar, and different parts of Africa, drawn from rare authentic publications and manuscript notes.

*Diodori Siculi Bibliothecæ Historicæ Libri qui supersunt, &c. Diodorus Siculus, with Notes, &c. By Eichstædt. Vol. I.* 8*vo.* Halle.—This edition was begun by professor Wolf of Halle, who gave a sketch of the plan in the preface to Demosthenes' oration *respecting* Leptines, which we noticed some years since. He then resigned the task to M. Eichstædt, professor at Iena, who has corrected the numerous errors of Wesseling, which had been continued in all the more recent editions. He has also rectified the orthography, the punctuation, and the accentuation; so that numerous faults are amended in almost every page. The different prefaces of Wesseling are preserved. This volume contains the four first books of the text: the five remaining (which are together comprised in the first volume of Wesseling) will be contained in the second. The whole will be comprised in four volumes.

*Alcestis Euripidea, &c. The Alcestis of Euripides, with Notes, &c. By Wagner.* 8*vo.* Leipsic.—This edition is the result of several different memoirs read by the editor to the Philological Society. Among the manuscripts, he has preferred that of Florence, collated by Isaac Vossius; and, for the criticism, he has adopted Mr. Wakefield's edition of 1794. He has, however, consulted other editions. The various readings are inserted in the margin, and the notes in a commentary, which alone fills one hundred and twenty pages. The editor, on the whole, displays considerable erudition, and shows that he is possessed of a perfect knowledge of classical literature.

*Velleii Paterculi quæ supersunt ex Historiæ Romanæ Libris duobus, &c. &c. The Remains of Velleius Paterculus, with Notes. By Jani and Kranse. A Dissertation by Morgenstern on Vel. Paterculus's Historic Accuracy, &c.* 8*vo.* Leipsic.—The labours of Jani on Paterculus were continued only to the seventh chapter of the second book, when M. Heyne engaged Kranse in the task. To verify the text, he has consulted the edition of Rhenanus, and all the conjectures which have appeared on Paterculus from the sixteenth century to the present time. More than thirty passages, disfigured by the errors of transcribers, have been corrected and restored in the text. The prolegomena contain four memoirs: 1. De operis Velleii indole; 2. De Vellei ingenio, moribus, et fide; and 4. De Velleiani codicis editionibus, interpretibus, et emendatoribus. These four memoirs contain a critical history of Velleius. The edition concludes with the notes of Herel, and two indexes; the first on the Memorabilia of Velleius, and the second of Latinity.

*Gest und Character des Achtzehnten Jahrhunderts, &c. On the Spirit and Character of the Eighteenth Century, considered in a political, moral, and literary View. By D. Jenisch.* 3 *Vols.* 8*vo.* Berlin.—The history of the successive evolutions of the human faculties, as well as of events, and of the great characters who,

by their influence, have contributed to favour or retard those evolutions, form what may be styled the spirit and the character of the age. The author distinguishes five primitive faculties in man: 1. The faculty of distinguishing truth; 2. Of practising good; 3. Of feeling and expressing the beautiful; and 4. Of enjoying physical and moral happiness. He then examines the three following questions: 1. What degree of general happiness, of humanity, of morality, of perfection in science and arts, has mankind attained during this century? What are the remarkable differences, observed in the nations of Europe, relative to the four distinguishing faculties of man? What are the events, and who are the chief persons by whom politics, letters, arts, and manners, have been promoted in the eighteenth century?—The examination of these three questions is the subject of the present work. The first volume contains the history of the eighteenth century, relative to social organisation, morality, and literary taste; the second contains characteristic tables of the nations and states of Europe; and the third, the general progress of the human mind during this period. The author's view is consolatory; he sees nothing in the evolution of the human mind, especially so far as it regards the eighteenth century, but a general tendency to perfection.

*Kalligone, &c. Kalligone; or, on the Agreeable and Beautiful. By J. G. Herder.* 3 *Vols.* 8*vo.* Leipsic.—We have lately followed M. Herder with pleasure in his History of Man, and find equal satisfaction in the present work; the polemic writer is however too prominent to be pleasing; but the publication is meant in opposition to the 'Criticism of the Æsthetic Judgement of Kant.' We had intended to give a full account of this work; but the numerous foreign articles which claim our notice compel us to confine the present article to an abstract of the principal objects, to enable the reader to form an idea of a work which pre-supposes a knowledge of Kant's system. In the first volume, our author analyses the feeling of the agreeable and beautiful, with respect to our sensations. This analysis is divided into five sections, which treat—1. Of what is agreeable in forms; 2. Of what is agreeable and beautiful in contours, colours, and sounds; 3. Of living forms, and their relation to the idea of beautiful; 4. Of the use of the terms agreeable, beautiful, interesting, melting, of idea, form, perfection, of general rules, and the sensation of beauty; and 5. The rule of the beautiful.

The second volume treats of art and of criticism. The subdivisions are—1 Of the nature of art; 2. Of the liberal arts, the art of dress, architecture, and the cultivation of gardens; 3. The fine arts, the art of protecting ourselves, or the art of war, language, poetry, eloquence, the epic of the language of nature, the poetry of sentiment, and eloquence, so far as it is a

human art; 4. plastic arts, viz. motion, dancing, and music. The author concludes by a passage from Leibnitz, on the power and employment of music.

It is hence obvious, that an abstract would give but an imperfect idea of a work which deserves to be studied with deep attention. This, like all the works of Herder, shows a brilliancy of imagination, with a conciseness of expression, which is with difficulty rendered into any other language.

*Wieland's Aristippe, &c. Aristippus. By Wieland.* 4 *Vols.* 8*vo.* Leipsic.—We have been highly pleased with the brilliancy of an author, whose genius and fire are scarcely less animated after having entertained us more than fifty years. We still see traces of his vivid spirit, and still admire his vast extent of knowledge, varied and embellished by the charms of a lively imagination and successive novelty.

The story is a light chain, which enables the author to expatiate into the regions of fancy, and allows him to decorate his scene with descriptions of every kind. Aristippus, a disciple of the school of Socrates, and one of the first geniuses of Greece, accustomed to observe objects under every point of view, and to attach himself to what was most agreeable and pleasing, keeps up a connected correspondence with the most celebrated men and women of his age, particularly with his friend Laïs, as well known by the brilliancy of her genius as by the charms of her person. This correspondence comprehends whatever is remarkable in ancient Greece, from the time of Pericles to that of Dionysius. The reader is by turns transported to the odoriferous bowers of Laïs in her beautiful retreat at Ægina; to the dungeon of the dying Socrates; to the workshops of the greatest masters; to the voluptuous court of a Persian satrap; to Cyrene; the academies of Syracuse, &c. All these varied scenes are mixed with interesting reflexions on the employment of life, on the philosophy and the government of Greece. Plato, Socrates, and other great men, appear with all their perfections and their weaknesses, in the midst of the virtues, the vices, and the follies of their æras. Nothing is invented: all the facts are historically true, and collected from ancient authors. The charming variety, the penetration, the delicate pleasantry, which reign in it, qualities which Aristippus possessed in a superior degree—*omnis Aristippum decuit color*—render this publication a proper companion for Anacharsis's Travels. It forms the thirty-third, thirty-fourth, thirty-fifth, and thirty-sixth volumes of the new edition of Wieland's Works.

---

*** *The Literature of Denmark, Sweden, Russia, Holland, Spain, and Italy, furnish in this period so few works of importance, that we have been induced to postpone our account of them until the appearance of our next Appendix.*

# REVIEW

OF

# MAPS AND CHARTS.

*Map of Asia, by Aaron Arrowsmith. (Continued from Vol. XXXII. p. 584)* *.

WE have already offered our observations concerning the Russian and Chinese empires forming the greater part of Asia. Before we leave the latter, we may remark, that, in China Proper, a greater number of canals should have been delineated, as is done in the maps of Holland; for, this being the chief feature of the country, the omission appears a deficiency.

On proceeding to Independent Tartary, we find Mr. Arrowsmith has been greatly indebted to major Rennell, to whom the map is dedicated. The worthy major is an excellent engineer, and has acquitted himself extremely well in his Bengal Atlas and his Map of Hindustan; which last, however, will, we understand, soon be superseded by a larger and superior map, about to be published by our East-India Company, than which they can scarcely execute a more laudable or magnificent design. Where the materials are tolerably clear, major Rennell is an excellent geographer; but, in the conjectural parts, frequently too rash, and, from his deficiencies in learning, unaware of the difficulties to which his decisions may be exposed. A modern hasty journey, or a few reports from caravans, cannot be set in competition with the patient labours of d'Anville, who was himself a man of very great learning, as appears from his papers in the Memoirs of the Academy of Inscriptions, and from several detached publications. With the writings of Marco Polo, and other travelers, d'Anville was far more intimately acquainted than major Rennell can pretend to be, and, of course, deserves more credit in his delineations, where modern surveys of superior accuracy have not been effected. For instance, a remarkable feature in this map is the Plain of Pamer, on the east of Great Bucharia. This major Rennell introduced into a small map contained in his Memoir of a Map of Hindustan, (which small map Mr. Arrowsmith here follows) from the authority of

* In that article, the name was put *Archibald* by mistake.

Strahlenberg, who gives the same vast plain on the north of Cashmir, calling it the Plain of Pamer, or of Arschimaki. The map of Strahlenberg is certainly wonderful for the time, and is celebrated in the history of geography as the first that disclosed the interior parts of Asia; but it is no authority whatever at the present day. As Strahlenberg extends the Plain of Pamer, or Arschimaki, to the northern mountains of Cashmir, he happens unfortunately to have included in this wonderful plain the country of Little Tibet, which is one of the most mountainous in the world. We therefore leave Strahlenberg, and proceed to d'Anville, who, in his Map of Asia, lays down the Plain of Pamer at the source of the River Vash, and marks it as running from east to west; while Rennell draws it north and south.

The sole authority for this Plain of Pamer is Marco Polo; for, strange to tell, while English enterprise is visiting every part of the globe, we are still obliged, with regard to the geography of a great part of Asia, to depend upon the vague and uncertain descriptions of a writer of the thirteenth century! It is greatly to be wished that the learned society at Calcutta would send missionaries to examine Great and Little Bucharia, and the northern parts of Tibet, than which a greater service could not be rendered to geography. A slight disguise, or even the character of a traveling merchant, might be sufficient for this important object, as caravans pass regularly from Cashmir. If necessary, the consent of the Chinese government might surely be obtained, on explaining the scientific purpose, and a promise of communicating the astronomical observations. We earnestly hope the East-India Company will add this object to their design of a Map of Hindustan. At present we know almost as little of the centre of Asia as of that of Africa. But to return to the only authorities we possess: Marco Polo, lib. i. c. 37. thus mentions the Plain of Pamer. Leaving Balascia, or the present country of Gaur and Kilan, he arrives in four days at the province of Vocam, or, according to other manuscripts, Vocham; by d'Anville called Vakan; and palpably four days' journey N.E. from Balascia. We shall now translate his words literally.

'Hence, if you depart to the east, you must ascend for three whole days, till you come to a very high mountain; and there is not a higher in the world. There is also found, between two mountains, a charming plain, and in it a most beautiful river, with pastures so excellent, that in them a lean horse or ox will become fat in the course of ten days. There is also plenty of wild animals, particularly large wild rams, having long horns, of which different vessels are made. This plain contains, in *length*, a space which *may be* passed in twelve days, and is called Pamer (by other manuscripts, Panis); but, if you pro-

ceed further, it bears the appearance of a desert, without human habitation or green herb; travelers are therefore obliged to bring victuals with them. No bird appears, on account of the cold and great elevation of the land, which affords no food for animals. If a fire be lighted there, it is, on account of the extreme cold, not so bright nor powerful as in lower regions *. Hence the way leads further, between the east and north, through mountains, hills, and valleys, (for forty days, according to some manuscripts,) in which many rivers are found, but no human habitation, nor any plant. This region is called Belor, bearing at all times the appearance of winter; and this appearance continues till the traveler have passed forty days; and for so many days it is necessary that he should bring provisions with him. In these stupendous mountains habitations are found thinly scattered; but the men are wicked and cruel, given to idolatry, living by the chace, and clothed in skins.'

He then arrives at Cashgar.

Such is this celebrated and remarkable passage, which it is evident Strahlenberg and major Rennell have grossly misunderstood; for the Plain of Pamer is by them represented as about four degrees in length, or 280 miles; while the country of Belur is delineated as a small district. Polo, on the contrary, says, that the whole length of the plain is twelve days; while that of the alpine region of Belor is forty days. So much for accuracy in the use of geographical authorities, which require a judgement long accustomed to literary discussion, and are alike foreign to the early pursuits of general Strahlenberg and major Rennell. It is probable that the Plain of Pamer is a delightful vale, watered by the Ortong, or perhaps the Amu, and of course reaching, as d'Anville supposes, from west to east, till, at the distance of twelve days' journey, it terminate in the desert alps. And it is evident that these alps, passing N.E. and S.W. form the region of Belor described by Polo, being the grand chain called Belur Tag in the Russian maps, which is the real Imaüs of the ancients. The district and town of Belur are therefore ridiculous, being mere suppositions of Strahlenberg, and totally unknown to the oriental and Russian geographers. Badakshan, on the contrary, nearly approaches the alps of Asia; and it would seem that Strahlenberg has transposed some parts of his map from the country of Little Tibet, which he omits, to the other side of the mountains. It is equally rash to derive from that authority some names on the west of Little Bucharia, which seem here again transposed to the wrong side of the mountains.

After this discussion, we shall not dwell on other parts of In-

* This experiment has been confirmed by De Luc, on the Alps.

dependent Tartary, but only observe, that Samarcand is placed on the wrong side of the river, as it stands on the south, not on the north. In this Mr. Arrowsmith has been again mis-led by major Rennell; and we must once for all recommend to him, in any doubtful case, to prefer d'Anville. When we consider the numerous theories and bold imaginations attempted to be introduced into geography by major Rennell, we have often been led to doubt whether his services or demerits be the greater. His chief defect is want of severe judgement and critical examination, joined with a kind of caprice, in pursuit of some favourite notion. In short, whether we consider literary acquirements or exactness of judgement, d'Anville is infinitely superior to any geographer who has yet appeared. His works are open to infinite improvements from new discoveries and genuine observations, but can never be improved by new theories, which only serve to disgrace our books and maps.

On passing to European Turkey, the Black Sea will be found to be laid down with great care from the recent observations of Beauchamp. The mountains are delineated with a bold and free hand. We might observe that Olympus is omitted; but we understand that only a few copies of this map were taken off, and that, in a new edition, this and other small mistakes will be corrected.

Our limits are confined; and we must pass hence to Arabia, which might have been greatly improved by a careful perusal of Niebuhr's description. Mr. Arrowsmith would thus have been enabled to have presented a better idea of Arabia than is contained in the map of d'Anville here copied. It is much to be regretted that M. Niebuhr himself has not published a general map of Arabia, since he is particularly qualified for such a task; and since our maps of that country are very imperfect, and in some parts, as would appear from his description, wholly erroneous. We are, however, greatly indebted to the Danish traveler for his map of Yemen, which Mr. Arrowsmith has carefully used. In the other parts, as already mentioned, d'Anville is his chief guide. But the river of Astan is a mere brook, which only flows after rain. We cannot discover upon what authority Mr. Arrowsmith has placed Lahsa on a bay of the Persian Gulf, while, by the account of Abulfeda, followed by d'Anville, it is at a considerable distance from the sea; and it seems evident, from Niebuhr's map of the Persian Gulf, that Lahsa cannot be in this position. The interior of Arabia should be represented as a sandy desert, with Oases like those of Africa. It is to be wished that more expense were devoted, in engraving maps, not to idle ornaments, but to the higher gratification of justly representing the countries themselves. Maps are cheap, when compared with other prints; and few purchasers would hesitate to be at a little more expense on account of more precise know-

ledge united with superior beauty. Our maps already equal those of any nation: but it is not improbable that posterity may regard them as meagre.

In Persia, our ingenious artist might have used the beautiful little map of La Rochette, in which some objects appear to be delineated with superior exactness. As Istakar, or Persepolis, stands on the west side of a range of mountains, they should have been represented; and the maps in Niebuhr's voyage (which must not be confounded with his description of Arabia) would have furnished Mr. Arrowsmith with useful hints. But the geography of Persia is nearly as imperfect as that of Arabia; and the inquirer will find a wonderful and unexpected deficiency of accurate materials. We now arrive in Hindustan, in which major Rennell is blindly followed; though even the map of La Rochette might have still afforded useful hints and improvements. We doubt whether the Caggar does not join the Indus, as the supposed course delineated by Rennell is alike unknown to ancient and modern geography. It may perhaps be lost in the great sandy desert. Another remarkable and visionary feature, derived from major Rennell's map, is a long uniform black line, intersecting the centre of Hindustan, and called the Nerbudda and the Soan rivers, which, by this wonderful idea, form one stream; the one part on the east, and the other on the west. The judgement of d'Anville would at once have rejected this absurdity; and we know that the Nerbudda and the Soan only rise in the same mountains, like the Rhine and the Tessino. La Rochette had before laid down these rivers in a far superior manner. But in this and other instances we anxiously wait for the improved map to be published by the East-India Company. In general, however, a better guide could not have been followed in Hindustan than major Rennell, whose labours in this country deserve the greatest praise: nor can any new map abolish these merits; for all knowledge is progressive, and no man can go beyond his period and materials. Let it not be understood, that, while we blame the worthy major's occasional inclination for theory, we mean to detract from his just reputation in the use of solid materials, which we shall always be eager to support and applaud.

The geography of Ceylon will, doubtless, be more clearly explained, now that this important isle remains in our possession. That of the Birman empire, and the other kingdoms forming the region formerly styled India beyond the Ganges, is greatly improved from the maps in Mr. Symes's Embassy, accompanied with one by Mr. Dalrymple, a gentleman long distinguished by his eminent skill in maritime geography. Emulating the industry of his late learned brother, sir David Dalrymple, lord Hailes, this gentleman has, by several works and charts, greatly assisted the maritime researches of every kind which have adorned the

present reign, and has formed a most extensive library of voyages and travels, so as greatly to assist geographical inquiries. Mr. Arrowsmith could not therefore have followed a safer guide, but might have enriched this part of his map with many names in the interior, particularly in Siam.

The Philippine Islands, with the northern part of Borneo, appear to be laid down with remarkable care and accuracy; for Mr. Arrowsmith excels as a hydrographer, and his charts are entitled to particular praise. The eastern extremity is closed with the Pelew Isles, in which it strikes us as a novelty, that Babelthouap, one of the most northern, is represented of a more considerable size than in any former draught of Mr. Arrowsmith's.

We do not stop to point out some minute errors in the spelling, &c. If any excuse were wanted for such slips in so large and laborious a design, it may be found in the truth that this map was published amidst domestic affliction, when the mind is the least capable of attending to minute objects, which, at such a period, excite neither interest nor attention. Upon the whole, this Map of Asia is far superior to any other which has yet appeared, being indebted to many new observations and discoveries for a decided superiority over that of d'Anville, from which many other maps have been copied. It is not indeed so learned, but is better adapted for general use, and forms a useful standard, by which we may estimate the progress that has been made within this last half century, which, in the maritime parts, is infinite; and while we must regret the remaining deficiencies in central Asia, Arabia, and Persia, still the progress has been important; and even within these two years far more precision, in many respects, has been introduced. We hope Mr. Arrowsmith will soon publish a second edition, to which we shall pay due attention.

---

*Indiæ veteris, &c. A Geographical Specimen of ancient India, so far as known to the Macedonians, and of the adjacent Regions, with the Names and Situations of modern Towns: together with the Marches of Alexander between the Euphrates and the Hyphasis, and the Navigation of Nearchus from the River Indus to the Tigris. By L. S. de la Rochette. Half a Sheet.* 5*s.* Faden.

THIS beautiful little map is drawn with great care, enriched with a considerable portion of learning, and engraved in a manner singularly neat and perspicuous. The title should rather have styled it a Map of Persia; for Alexander only visited the skirts of India. The space comprised extends from Hilla, or ancient Babylon, in the west, to the great desert on the east side

of the Indus; and from Mascat, in the south, to Kojend, or the furthest Alexandria, in the north.

M. la Rochette, we believe, studied for some time under the celebrated d'Anville, and has long ago given eminent proofs of his skill in this department. But even the present map would be alone sufficient to establish a considerable reputation. Our author evidently studies books as well as maps, with great attention, and expresses the positions with singular neatness and precision; and we only regret that there is not a short memoir to indicate his sources of information. We could also have wished that the chains of mountains had been expressed in the new and improved manner, divided into main ridges, shaded according to their different altitudes; for to represent, in the manner of d'Anville, all hills of the same height and form, seems as improper as it would be to represent all rivers of the same breadth. The ingenious author may perhaps still derive some improvements from the map of Wahl (which we wish to see re-engraved in England), as it seems doubtful, for instance, whether the river Tedjen reaches the Caspian: but, upon the whole, we may safely pronounce this to be the best map of Persia extant. We would recommend it to be bound up in every general history of Greece, or biography of Alexander, as throwing more light on the scenes of action than many long dissertations.

This elegant little map is engraved with singular care and beauty, and is of course comparatively high-priced, especially when the smallness of the size is considered. But we have already expressed our wish that this practice were more general, so as to bring maps more upon a par with other prints, to which they are infinitely superior in utility, and even in rational amusement. We think that the price ought also to vary according to the beauty of the impressions: for, of this and other maps executed with great neatness, we have seen impressions of very different value. We confess that we admire even the luxury of learning, and should like to see the department of maps as much diversified by connoisseurs as that of other prints.

---

*The South-Eastern Part of France, which includes Roussillon, Languedoc, with a great Portion of Rouergue and Auvergne, Provence, Dauphiné, and the whole Frontier of Italy. One Sheet.* Faden.

THIS map may fairly be classed among the most excellent which have yet appeared in any country. We are given to understand that it is reduced from the celebrated maps of Cassini, under the direction of La Rochette. Never was a mountainous country represented with more truth and precision: and this

single map may be recommended as a perpetual model of the utmost perfection which the art can probably ever attain, and ought always to be under the eye of the draughtsman in delineating maps of counties or provinces. The hills are laid down with such truth of nature, and the forms and elevations so exactly expressed, that a bird's-eye view is given, as it were, of all this extensive country; and the reader seems rapidly to travel over it, or to view it, as in the noted model of part of Switzerland, executed by general Pfeffer.

The sheet is entirely filled, from beyond Lavaur and Mirepoix in the west, to Asti in Piedmont, and Oneglia in the east. The south comprises part of the Pyrenees, and the northern limit is beyond Grenoble. Some maps of other parts of France are also published by Mr. Faden on the same scale; and we suppose, that, including the Netherlands, which might be in like manner abridged from Ferrari, the whole might form a map of the French republic, in eight sheets, which would be a truly valuable production, if executed with equal care and beauty.

In the mean time, it is scarcely necessary to remind the reader, that the map now under view yields to few parts of France in historical intelligence, and surpasses every other part for the perusal of the natural history of that country, which is chiefly remarkable in the mountains of the Cevennes, and in the noted wonders of Dauphiné.

---

*The Continent of America, with all the Discoveries to the Year* 1801. *Four Sheets.* Laurie *and* Whittle.

MAPS in general may be divided into three kinds:—1. Those which are wholly new, as founded upon new surveys or new discoveries, or rendered novel by learned and assiduous research, so that important names and positions appear for the first time. This class we are chiefly anxious to applaud, and introduce to public notice.—2. Respectable re-publications or reductions, which, without any novelty, merely aspire to the merit of exactness. This class is perhaps the most universal, being generally within the purchase of common readers, captains of ships, &c. and forming a considerable article of common exportation. Such maps seldom or never aspire to beauty, the chief object being the sale of a numerous impression, so that they are cut uniformly deep on the copper, which is incompatible with much elegance.—3. Bad maps of all descriptions; being generally injudicious re-publications of antiquated maps, without any knowledge of those that are the most recent or the most improved. This class is surprisingly numerous, and abounds in the common print-shops, where maps of 1740 may

be had, carefully reprinted, or perhaps in part re-engraved, with dates of the present year. The maps by Kitchin, in Guthrie's Grammar, and those in what is called The ancient Geography of Cellarius, are curious instances of this description; as, on comparing them with recent and genuine maps of the various parts of the world to which they relate, they will be found to abound with the grossest and most radical errors, so that the very quarters of the compass are confounded.

The present map ranks under the second description; as it certainly contains nothing new, but is engraved in a strong manner for sale. It is however very decent, as the latest discoveries are not neglected. But we wait with impatience for Mr. Mackenzie's new book of travels, to improve our knowledge of many parts of North-America. We certainly have a fair claim to the discoveries by Cook and Vancouver in the north-west of America, which are accordingly coloured red in the copy before us; but this complexion can scarcely be extended to the Aleutian Islands, which were discovered by the Russians, and are even here given under the Russian name of *Aleootskia*, a barbarism which appears even in more respectable English maps.

This Map of America might have been comprised in two sheets, so far as strictly relates to that country, being absurdly swelled on the west with a great part of the Pacific, so as to include even the Friendly Isles, which have not the most distant connexion with America. As it is commonly necessary to balance one absurdity by another, great part of a sheet is filled with part of Africa and Europe. This confusion we must condemn; and certainly our map-makers, however ignorant, should confine their works within the proper boundaries which common sense dictates, or should indicate in their titles and catalogues the real extent which is given, otherwise a considerable inconvenience may arise; as, from a Map of America, in four sheets, to use the present instance, far more information might be expected than from one confined to two,—South America not here extending even to what is called a map in one sheet.

The nature of this map, as already expressed, prevents our entering into any formal criticism, which we shall only bestow on maps of the first class,—those of certain novelty, or superior beauty and exactness.

*An Account of the Operations carried on for accomplishing a Trigonometrical Survey of England and Wales; from the Commencement, in the Year* 1784, *to the End of the Year* 1796. *Begun under the Direction of the Royal Society, and continued by Order of the Honourable Board of Ordnance. First published in, and now revised from, the Philosophical Transactions, by Captain William Mudge, F.R.S. and Mr. Isaac Dalby. Volume I. Illustrated with Twenty-two Copper-Plates.*

*An Account of the Operations carried on for accomplishing a Trigonometrical Survey of England and Wales, continued from the Year* 1797, *to the End of the Year* 1799. *By Captain William Mudge, F.R.S. &c. Volume II. Illustrated with Seven Copper-Plates. From the Philosophical Transactions.* 4*to.* 3*l.* 3*s.* Faden. 1801.

THESE two volumes, or rather first volume and part of the second, are elegantly printed, and illustrated with neat prints. They present a complete and interesting account of what has hitherto been accomplished in this national design, from which we may expect a series of exact maps of England and Wales, which may probably rival Cassini's Map of France. The preface concludes in the following manner.

'In the prosecution of the general survey, frequent opportunities have manifested themselves of enabling us to discover the very erroneous state of our maps. The work itself will enable any one to draw the same conclusion; for, by laying down on the maps of counties, particularly on Taylor's Map of Dorsetshire, the distances of the intersected objects, as Dorchester Church from Ninebarrow Down, where an error of nearly three miles is detected in a distance of eighteen, an immediate proof is obtained of their great inaccuracy. Taylor's Map of Dorchester is here specified, because we think it is the most erroneous of any we have examined: yet those of Devonshire and Kent may be considered as similar specimens of imperfect topography. The only maps which have passed under our notice, worthy commendation, are those of Surrey and Sussex; the former by Mr. Linley and Mr. Crossley, the latter by Mr. Gardner. These maps are indebted to the recent trigonometrical operations for their accuracy. General Roy's afforded data for the survey of Surrey, and our own copious materials for that of Sussex; but, with respect to this map, it is proper something more should be said.

'When the survey in 1791 was recommenced, it was determined we should proceed with our triangles in a southern direction towards Fairlight and the coast, for the purpose of uniting our work with that of general Roy. At the period of our visiting the station on Hind Head, carrying on

the business with this intention, we received instructions from his grace the duke of Richmond to be minute in our survey of Sussex; and to furnish Mr. Gardner, chief draughtsman to the Board of Ordnance, with materials for correcting a map of that county, intended, at some future period, to be published under the patronage of his grace. In compliance with these instructions, our labours were directed to this effect the two following years, during which period Mr. Gardner generally attended us, having been supplied with sufficient materials for correcting all the southern and western parts of his map.

'It is to the present purpose we should inform the public, that, in the survey now carrying on, our operations are intimately connected with those of Mr. Gardner, as very important advantages have accrued to government from the accuracy with which their plans have been made. This has arisen from the union of the parties. In the year 1793 and 1794, Mr. Gardner, and the gentlemen of his department, accompanied us in the survey of the coast of Hampshire and the Isle of Wight, and have since finished a military description of both, drawn on a scale of three inches to a mile: but these plans, together with one of the country round Tunbridge, and another of that round Bagshot and Farnham, are lodged in the Tower, for the use of government, and not submitted, from obvious motives of policy, to public inspection.

'In the year 1795, the trigonometrical operations were carried on in Kent, in conjunction with Mr. Gardner, from which a very fine map has been since formed, containing all that part of the country which, from its proximity to the coast, may in process of time become the seat of military operations.

'It has been very justly expected by the public, that, from the present undertaking, they should derive the advantage of an improvement in the geography of their country, and possess some general map, published on the same principle with the *Carte de France*, a performance highly celebrated.

'Recognising the propriety of this expectation, the persons to whom these pages are dedicated have been pleased to comply with the wishes of Mr. Faden, in permitting him to engrave, under certain restrictions, this map of Kent for public use. At the time this affirmative was passed on the measure, and passed with the sanction of his royal highness the commander in chief, the county had been surveyed only in a partial manner. To present, therefore, this specimen of military delineation in a perfect state, the master-general directed the operations of this year, 1798, should commence in Kent, be continued over the county till the whole was finished, and then be carried into Essex, for the purpose of surveying the southern parts of it, that both sides of the river might be depicted on the plan. These instructions have been carried into effect, with the assistance of

Mr. Gardner, by whom the map has been finished in a masterly manner, and will be published by Mr. Faden in the course of the present year.

'The publisher of this work being exonerated from the heavy expenses which would have attended the engraving of the numerous plates, is enabled to dispose of the volume at an *easy rate:* and, as the measure will be eminently calculated to benefit the community, he trusts the same indulgence will be extended towards him in future as that which he has now experienced. In this case, if he executes his present intentions, such papers as may appear in the Philosophical Transactions relating to the Trigonometrical Survey, will, from time to time, be re-published by himself. He has, therefore, denominated this the first volume.' Vol. i. P. xi.

The first volume begins with an account of the instruments employed, particularly the steel chain and the glass rods; and is followed by the determination of the base taken on Hounslow Heath in 1784; and an account of the operations, in 1787 and 1788, for ascertaining the distance between the meridians of Greenwich and Paris. All the operations appear to have been conducted with extreme care and attention; but plates would be required to explain the progress, which is, besides, too replete with mathematical forms and illustrations to interest the general reader. The introduction to the account of the survey in 1791 informs us, that this great design was entertained as early as 1763, but was procrastinated by various causes till 1783, when it was renewed in consequence of a memoir from M. Cassini de Thury, and the first conductor was general Roy. Various improvements took place in 1791, which are here minutely detailed; but the greater part of these volumes is filled with tables, presenting, in distinct columns, 1. the names of the station; 2. the observed angle; 3. the difference; 4. the spherical excess; 5. the error; 6. angles corrected for calculation; 7. the distances between the stations in feet. Other tables mention the triangles, the angles observed, and the distances of the stations from the intersected objects.

The first volume contains twenty-two plates; among which are, a map of the base measured on Hounslow Heath, and representations of the instruments employed; a map of the base of verification in Romney Marsh, with telescopes and other instruments. The plan of the triangles, connecting the meridians of Greenwich and Paris, is interesting, as it contains the county of Kent, with part of Essex. In the former, the range of chalk-hills from Guilford to Dover is followed in the south by what is called the iron and rag-stone range, which might have been more exactly expressed in modern mineralogy. This is succeeded by the range of clay-hills, extending to the chalk-hills

near Brighthelmstone, which are also included. The plate of triangles, 1791 to 1794, embraces the Isle of Wight and a great part of the southern coast; and that of 1795 and 1796 extends to Sennen, in the western extremity of Cornwall; while the eastern extremities of Kent are delineated in the twenty-second or last plate.

The second volume, or rather the first part of this volume, contains the progress from 1797 to 1799, consisting almost wholly of tables on the plan already mentioned.

'The stations chosen and observed this year, but not visited with the instrument, were Monymoor, near Penhow; the mountain Twymbawlin, near Newport; and Scilly Point, in Glamorganshire. These stations in South Wales will connect with three in Somersetshire, also selected this season; one on Bleak Down, which is situated on the western extremity of the Mendip range; a second on Brent Beacon; and a third on the Quantock Hills.

'Subsequent to the operations on Salisbury Plain, inquiries had been often made after a spot on which a third base might be measured. Experience had almost convinced us, that, if Sedgemoor were excepted, the southern part of England did not contain one of sufficient extent for a base of three miles. Aware, therefore, of the imperfect state in which our work must rest without a fresh base, Mr. Dalby and myself passed over into South Wales, and examined the extensive level between the new Passage House and Cardigan. After, however, a very diligent search, we could not find any spot, four miles in length, sufficiently unobstructed. The advantages which the situation itself holds out, are so great, that we should not have scrupled to dispense with a desideratum, heretofore required, of the base being one continued line. So much, however, is this flat cut up with rhynes and ditches, that we were not able to find any point from which two right lines might be measured, and so inclined to each other as to afford, by means of an including angle, a third side of five miles in length: necessity, therefore, compelled us to think of measuring a base on Sedgemoor, which we immediately examined. That which relates to this situation will be found in an ensuing article: it is now only necessary to observe, that we concluded the operations of 1797, after the practicability of measuring a base upon it had been decided in the affirmative.' Vol. ii. P. 10.

Towards the close of this part there are some curious observations concerning refraction. The plates consist chiefly of various triangles, extending as far as Coventry, and a particular map of those constructed for the county of Essex, &c.

There is reason for great satisfaction, that this laudable design seems to have been little interrupted by the war; and it is

hoped that not many years will now be required for its completion. It might then be a matter of deliberation, whether each county should be published apart, or a general and connected map given in sheets, upon the scale of Cassini's Map of France. When England and Wales are completed, the design will of course be extended to Scotland and Ireland.

---

*Atlas Topographique des Environs de Paris.* Paris. 1800.

*A Topographical Sketch of the Environs of Paris, in Sixteen Sheets. By D. Coutans, Ex-Benedictine. Corrected and enlarged by Ch. Picquet, Geographical Engraver.* 2*l.* 12*s.* 6*d.* Imported by De Boffe.

THIS work is engraved with great force, united with considerable neatness, and is dedicated to Bonaparte. The sheets do not exceed our half-sheets in size; and, if united, would form an oblong square—Paris being the centre, and the southern limit Fontainebleau, while the eastern extends to Château-Thierry, whence the distance may be estimated. But many useful hints might have been derived from our maps of the environs of London; such as the number of miles from the capital, &c. &c. This Atlas will, however, be found very useful by the numerous strangers who now crowd to Paris, as not only a singular scene in recent history, but as offering an assemblage of monuments of the fine arts, formerly confined to Italy.

The bottom line of each sheet presents a scale, in the new measures, of ten kylometers, or one myriameter, and also of toises or fathoms, whence it appears that the scale is about one inch to the English mile; but we think the miles and leagues ought also to have been indicated. The copper is entirely covered, even ploughed fields being represented, with the nature and elevation of the smallest spots; and the industry of the design is equaled by the neatness of the execution. Many villages still retain the names of saints; and perhaps it is discovered, that they neither do good nor harm. The abundance of forests and woods, in the vicinity of the capital, constitutes a striking difference between the environs of Paris and those of London; but in France their preservation is indispensable, for the sake of fuel.

---

*A Plan of the Grand-Junction Canal, with the Branch to Paddington. Half Sheet.* Smith. 1801.

THE canal recently conducted to Paddington has deservedly attracted considerable observation; and this pleasing novelty is regarded as a remarkable addition to the advantages, and even

the amusements, of the metropolis. The present plan extends from London to Braunston, or about ninety miles, and is executed in a neat manner. It would have been as well, as there is great vacancy in the corners, if the part from Paddington to Uxbridge had been inserted on a scale of four times the size of the rest.

---

*Smith's New Map of the Inland Navigation of England and Wales. One Sheet.* Smith. 1801.

THIS is an interesting map, executed with considerable care. In the copy before us, some of the canals are coloured red, others green and blue. We see no reason for this distinction, as the progress of inland navigation would have been more discriminately marked by colouring the whole in red. The rivers are judiciously inserted only so far as navigable; and the whole is a most useful performance in this commercial country.

---

*Smith's New and accurate Map of the Lakes in the Counties of Cumberland, Westmoreland, and Lancaster. One Sheet.* Smith. 1800.

THIS map seems tolerably accurate, but might have been delineated in a far more picturesque and impressive manner, and enriched with many additional circumstances, as mountains, mines, &c. The mountains are indeed inserted, but in a slight manner; yet it may be found convenient as a traveling companion, the names of the inns which furnish post-chaises being introduced in a corner.

---

Mr. Smith is publishing a New English Atlas, each county on a sheet of imperial paper, to be accompanied with an *index villaris*, containing upwards of fifty thousand names of places mentioned in the work, with references to their situation. It will be comprised in fifteen numbers, each containing three whole sheet maps, price 6*s*. 6*d*. neatly coloured, or 8*s*. stained. The cheapness of the price we do not admire, and would rather wish to see maps brought more on a level with other prints. Considerable time and expense must be employed in drawing a good map, and the expense of engraving is now a matter of some consequence; hence a cheap map is only another name for a bad one: and it strikes us, that the publication of a new English atlas is rather premature, when we know that many gross errors must remain till the trigonometrical survey, now carrying on, shall have been completed. The specimens we have seen are, however, very well executed, as far as the materials can be depended on.

*A New Chart of Surinam River (and the Coast approaching it) to Paramarabo, accompanied with Sailing Directions, Views of Land, &c.* Laurie *and* Whittle. 1802.

A Useful chart for mariners, and seemingly laid down with great care and accuracy. It is accompanied with half a sheet, octavo, of directions.

---

*Plymouth Sound, Hamoaze, and Catwater, with the leading Marks and Views of Land. By William Price, Master in the Royal Navy,* 1798. Laurie *and* Whittle. 1800.

ANCTHER useful chart, with sailing directions, views of land, &c.

---

*Chart of Spitlead, from the East End of Hayling Island to Stokes Bay. By Francis Owen, Master in the Royal Navy.* Laurie *and* Whittle. 1801.

THIS chart includes part of the Isle of Wight, and the whole noble harbour of Portsmouth, as high up as Fareham: hence it is interesting to such as visit Portsmouth from mere curiosity. But it is particularly adapted to the use of the mariner, and is accompanied with eight octavo pages of sailing directions, which seem to be extremely minute and perspicuous.

---

*Chart of the East-India Islands, exhibiting the several Passages between the Indian and Pacific Oceans. By Aaron Arrowsmith. Four Sheets.* Sold by the Author. 1800.

THIS is an important chart, and Mr. Arrowsmith's talents are singularly adapted to hydrography; while maps often require a considerable portion of learning, to select the most veracious accounts, and insert the most interesting circumstances. The Bay of Bengal, with the coasts of Arakan, Pegu, &c. are improved from very recent observations, as are the Isles of Andaman and Nicobar. The other subjects of this valuable chart are the Philippine and Pelew Islands, with those of Sunda, and part of New Guinea: in short, the whole coasts of the Asiatic Archipelago are here delineated with an anxious care and precision which leave little room for future improvements, though some remain unexplored, particularly towards New Guinea; and the whole is authenticated by the tracks of several vessels at different periods. It would be fruitless to enlarge further on the subject, as Mr. Arrowsmith's name is a sufficient recommendation of a chart; and this becomes the more important from the celebrated commercial advantages of the countries delineated, and the intricacy of the navigation amidst

the multiplicity of islands, rocks, and shoals: hence a chart of this portion of the globe may perhaps be regarded as the utmost trial of the author's abilities in this department; and we doubt not that mariners will approve our recommendation of this chart to their particular attention.

---

A Map of Prussia, according to the limits of 1797, has been published at Paris, in one sheet, after that of Sotzman. It is designed to accompany a History of Frederic-William II. It includes the whole of the Prussian territories: but, in the eastern parts, astronomical observations are still wanting, to settle many positions with accuracy; and it is truly ludicrous to observe the German critics judging with such severity of the maps published in other countries, while the worst maps in all Europe are those published in Germany; and there is not to this day a map of their own country, by any German artist, which can claim a shadow of approbation.

---

Bacler d'Albe has, it is believed, completed his Theatre of the War in Italy, in thirty sheets. The longitude is from Toulon to Dalmatia, and the latitude from Bonifacio to Vienna. This grand and important map is, we understand, to be followed by another of the Kingdom of Naples, Sicily, Sardinia, and Malta, to be comprised in twenty sheets. The present sheets are certainly executed with great care and expense; but some think that the supposed exactness in the delineation of the mountains, which resembles a plan in relief, has more of imagination than reality, as several parts do not correspond with actual topographical surveys; and the whole seems too great an effort for human industry to accomplish on so large a scale, and through so wide an extent of country. We would recommend to the industrious and enterprising author to publish an ample memoir of this map, explaining the various materials upon which it is constructed, and the reasons of the variations from preceding large maps of reputed authenticity.

---

*** We are obliged to Dr. Vincent for his favourable opinion of our new department concerning Maps and Charts, and agree with him in regretting the loss of the Travels of Nicola Conti in the fifteenth century. This ingenious gentleman will excuse us for availing ourselves of this opportunity to recommend to his attention a translation of the Geography of Pliny, contained in his Natural History, which has been hitherto rather neglected by inquirers into ancient geography, though it be ample, and contain many particulars no where else to be found. In the hands of Dr. Vincent, such a publication, accompanied with notes of moderate extent, might form a most valuable accession to literature,

# ALPHABETICAL INDEX

TO THE

## *AUTHORS' NAMES & TITLES OF BOOKS.*


ADAMINA, 461
Address to good sense and candour of people in favour of dealers in corn, 219
Adultery, Letter to solicitor general respecting intended bill against, 102
Adventures of the Pyrenean hermits, 113
Advice to honest country people, 120
Africa, Travels into the interior of southern, 141
Agnes, 114
Agriculture, Letters and papers on, 258
——— and gardening, Philosophy of, 11
——— of Suffolk, View of the, 309
Alice, Sermon on death of Mr. 342
Allardyce's second address to proprietors of bank of England stock, 92
Allen's translation of Cuvier's introduction to study of animal economy, 230
America, Letters to citizens of United States of, 315
———, Map of, 559
Angelo (Michael), Twelve heads from the last judgement of, 462
Angler's pocket-book, 463
Angling reduced to a science, 464
Anglo-Saxons, History of the, 121
Animadversions on "Plain Thoughts," 454
Animal economy, Introduction to study of the, 230
Annales de Chymie, 515
Annals of philosophy, 252
Annotations on Paley's Principles of philosophy, 47
Annual register, Asiatic, 21
Answer (Twelve-penny) to a three-and-sixpenny pamphlet, 338
Antonio, 235
Aphorisms for youth, 457
Appeal to public on controversy between Hannah More, the curate of Blagdon, and the rev. sir A. Elton, 226
Arbogast's doctrine of derivations, 494
Arches, Construction and properties of, 399
Architecture (naval), Collection of papers on, 120
Arrowsmith's map of Asia, 552
——— of the East-India islands, 567
Art of teaching, 420
Asia, Map of, 552
Asiatic annual register, 21
Asthenology, 424
Atwood on the construction of arches, 399

BANK of England stock, Second address to proprietors of, 92
Bank of England's stoppage of specie issues, Remarks on, 338
Bank-notes, Refutation of misrepresentations respecting, 339
Barlow's letters to citizens of United States of America, 315
Barrow's travels into the interior of southern Africa, 141
Bartolomeo's voyage to East Indies, 288
Barton's sermon, 221
Bath, History of, 371
Beard on the laws respecting imprisonment of debtors, 348
Bent's meteorological journals, 464
Bere's Controversy between Hannah More and the curate of Blagdon, 224—Appeal to public, 226
Bible, Divine authority of the, 97
Bible, Observations on the, 52
Blackstone's Commentaries, Remarks on, 283
Blagdon, Controversy between Hannah More and the curate of, 224—Elton's Letter to rev. Thomas Bere, 226—Appeal to public, 226—Statement of facts, 227—Expostulatory letter to rev. sir Abr. Elton, 227—Boak's letter to rev. T. Bere, 228—Layman's criticisms on the dispute, 228
Blair's sermons, 391

Boak's letter to rev. T. Bere, 228
Bond's visitation sermon, 453
Boston haven, Observations on the improvement of, 119, 240
Boyd's Indian observer, 191
Bray's idyls, 350
Bread, Examination of statutes relating to assize of, 346
Breislak's travels in Campania, 525
Bridges, Principles of, 103
Britain, Tour through Great, 320
Burchell on the income tax, 218

CAMPANIA, Physical and lithologic travels in, 525
Campbell's lectures on ecclesiastical history, 196
Canal (junction), Plan of, 565
Canning's Wedding and bedding, 106
Canterbury tales, 207
Carnarvon (lord)'s assertion respecting expenses of war, Vindication of, 217
Case of conscience solved, 450
Cathartics, Dissertation on, 455
Catholic emancipation proved compatible with coronation oath, 450
Catholics (admission of) to parliament, Question concerning, 449
———, Necessity of restoring them to their political rights, 91
——— of Ireland, Letter to Mr. Pitt respecting proposed abolition of test in favour of, 217
Chapman on the improvements of Boston haven, 240
———'s Facts and remarks relative to the Witham and the Welland, 119
Chavernac's translation of Delonne's Progress of surgery in France, 455
Chemical and philosophical essays, 349
Chemistry, Annals of, 515
Chess, Inquiry concerning the origin of the game of, 134
Chevalier's introduction to course of lectures on operations of surgery, 229
Chronological tables, 464
Churchman (The true) ascertained, 265
Classical English poetry, 104
Cleeve's devotional exercises, 222
Clergy, View of causes of non-residence of, 462
———'s right to seat in parliament, Considerations on, 451
Clergyman, The evangelical, 93
Coleman on the formation and uses of the natural frog of the horse, 463
Commerce of Great-Britain with Russian and Ottoman empires, Observations on the, 216
Composition (English), Elements of, 105
Confession, The, 237
Considerations on the present state of religion, 95
Constitution (British), Delineation of the, 404
——— (new French), Examination of the, 90
Contagious diseases, Instructions relative to self-preservation during prevalence of, 230
Corn (dealers in), Address to people in behalf of the, 219
Coutans' topography of the environs of Paris, 565
Coxe's historical tour in Monmouthshire, 241
Creation, The, 238
Creed, The politician's, 61
Crewe's oration at Oxford, 240
Crime from ambition, 237
Critical remarks on the Hebrew Scriptures, 169, 411
Crutwell's tour through Great-Britain, 320
Cuvier's introduction to study of animal economy, 250

DARWIN's Phytologia, 11
Debtors, Remarks on laws respecting imprisonment of, 348
Defence of Scripture doctrines, 97
Delille's Homme des champs, English translation of, 56
Delonne's Progress of surgery in France, 455
Denmark, Defence of convention with, 336
Derivations, Doctrine of, 494
Devereux on the factions which have ruled Ireland, 91
Devotional exercises, 222
Dialogue between country gentleman and poor neighbour, 98
Dictionary of the government of French verbs, 457
Diet, Practical treatise on, 70
D'Israeli's romances, 461
Divorces, Thoughts on the frequency of, 356

DRAMATIC.
Antonio, 236
Julian and Agnes, 328
King John, altered from Shakspeare, 235
Marie Antoinette, 112
Orgueil corrigé, 464
Zuma, 112

ECCLESIASTICAL history, Lectures on, 196
Economy, Practical, 116
Eden on friendly societies, 92
Eden's estimate of the population of Great-Britain and Ireland, 239
Edwards's history of British colonies in West Indies, 185

Elements of English composition, 105
Eliza to Yorick, 461
Ellis's specimens of the early English poets, 44
Elton's letter to rev. T. Bere, 226
England and Wales, Inland navigation of, 566
———————, Operations for accomplishing trigonometrical survey of, 561
Englishman, Opinion of an old, 337
Ernestina, 113
Estimate of number of inhabitants in Great-Britain and Ireland, 239
Evangelical clergyman, 93
—— —— preachers — Dialogue respecting, 98
Evans's epitome of geography, 456
—— tour through part of North Wales, 432
Examination of the new French constitution, 90
Exercises, Devotional, 222
Exhibition (Sacred) at Worthington hall, 99

FABIUS's letters to Mr. Pitt, 217
Factions that have ruled Ireland, Observations on the, 91
Farms (Uniting and monopolising) proved disadvantageous, 452
Farrer's visitation sermon, 223
Fenwick on practical mechanics, 103
Ferrier's two discourses, 342
Fever, Treatise on, 455
—— (yellow) in Philadelphia, Observations on the, 349
Florian's Orgueil corrigé, 464
Foreign Literature, Retrospect of, 529
Forestalling, &c. Inquiry into laws respecting, 318
Food produced from arable and grass land, Comparative statement of, 231
France, Literature of, 529
——, Map of the south-eastern part of, 558
French constitution, Examination of the new, 90
—— verbs, Dictionary of the government of, 457
Frend's refutation of misrepresentations relative to bank-notes, 339
Friendly societies, Observations on, 92
Frog (natural) of the horse, Observations on the formation and use of the, 463
Fullarton's letter to president of board of agriculture, 230

GABRIELLI's Mysterious husband, 353
Gardening, Essay upon, 231
Gardner on the evil effects of an increasing populatoin, 448
Garnett's annals of philosophy, 252
Geddes's Critical remarks on the Hebrew Scriptures, 169, 411
Geisweiler (Maria)'s translation of Iffland's Crime from ambition, 237
Geoghegan on the nature and treatment of some symptoms attending venereal disease, 229
Geography, Epitome of, 456
Germany, Literature of, 541
————, Tour through, 361
Gill's "Reasons" considered, 345
Gilpin's sermons, 322
Giovane (Duchess of)'s Statistical inquirer's pocket companion, 239
Gleanings in England, 86
Glig-gamena Angel-deod, 353*
Globe, Outlines of the, 1
Godwin's Antonio, 236
Graham's defence of Scripture doctrines, 97
Grant's history of Mauritius, 269
Gregg's hierogamy, 346
Grimshaw, Memoirs of Wm. 115

HAGER's disquisitio de Vár Hunnorum et Hungarorum, 354
———— ad Jornandis vindicem responsio, 355
Hall's Creation, 238
—— sermon, 224
Hammer's itinerary sketches, 523
Hanger, Life, adventures, and opinions of colonel, 232
————, Letter to, 232
Hart's Consideration of Gill's "Reasons," 345
Heads (Twelve) from last judgement of Michael Angelo, 462
Hebrew Scriptures, Critical remarks on the, 169, 411
Henry and Acasto, 353
Hermits (Pyrenean), Adventures of the, 113
Heslop's Comparative statement of the food produced from arable and grass land, 231
Hewlett's Duty of keeping Christian sabbath holy, 342
Hierogamy, 346
Hill's Henry and Acasto, 353
Hint to prevent ruin of timid stockholders, 240
History (Natural) of mankind, 503
Hodgson's Aweful judgements of God, &c. 221
Hodson's Evangelical clergyman, 93
Holsten (Esther)'s Ernestina, 113
Home's treatment of strictures in the urethra, Observations on, 456
Hull's dissertation on cathartics, 455
Hunter's reflexions on recent events, 336

Hunter's view of the political situation of the northern powers, 215
Hutton's principles of bridges, 103
——— sermon, 222

IDYLS by Bray, 350
Iffland's Crime from ambition, 237
Illingworth on the laws respecting forestalling, &c. 318
Income tax, Observations on the, 218
India (ancient), Geographical specimen of, 557
—— (East) islands, Chart of the, 567
——, Letters on, 162
Indian glossary, 356
——— observer, 191
Indies (East), Voyage to, 288
Infantry, Review of a batallion of, 463
Inhabitants in Great-Britain and Ireland, Estimate of number of, 239
Inquiry into laws respecting forestalling, &c. 318
Ins and outs, Odes to, 458
Institute (national), Memoirs of the, 465
Instructions relative to self-preservation during prevalence of contagious diseases, 250
Introduction to course of lectures on operations of surgery, 229
Ireland, Observations on the factions which have ruled, 91
Irving's Elements of English composition, 105

JEFFERSON's sermon, 453
Jervis on the state of religion and knowledge at the close of the eighteenth century, 96
John (king), Tragedy of, altered, 235
Johnston's translation of Struve's Asthenology, 424
Jornandis Vindiciæ, 355.—Ad præmaturum Jornandis Vindicem responsio, 355
Judgements (Aweful) of God against Israel and Judah, 221
Julian and Agnes, 328
Justina, 460
Juvenile travelers, 456

KEARSLEY's Traveler's guide through Great-Britain, 356
Keith's examination of the new French constitution, 90
Kingston-upon-Hull, Considerations on poor-rates and workhouse at, 324
Knight and mason, 237

LAING's history of Scotland, 66
Lakes in Cumberland, &c. Map of, 566
Lectures on ecclesiastical history, 196
Lee (Harriet)'s Canterbury tales, 207
Legacy, Moral, 354
Leonard and Gertrude, 354
Letter to bishop of Exeter, 238
——— to president of board of agriculture, 230
Letters from Eliza to Yorick, 461
——— on India, 162
——— to citizens of United States of America, 315
——— and papers on agriculture, &c. 258
Letter-writer, The London universal, 119
Lewis on uniting and monopolising farms, 452
Loriot's dictionary of the government of French verbs, 457
Lucas's Infernal Quixote, 113
Luttuoso, II, 110

MALHAM's view of the causes of non-residence of clergy, 462
Mankind, Natural history of, 503
Map of America, 559
——— Asia, 552
——— grand-junction canal, 565
——— inland navigation of England and Wales, 566
——— south-eastern part of France, 558
——— ancient India, 557
——— East-India islands, 567
——— theatre of war in Italy, 568
——— environs of Paris, 565
——— Plymouth Sound, &c. 567
——— Prussia, 568
——— Spithead, 567
——— Surinam river, 567
Marie Antoinette, 112
Marriage and divorce, Inquiry into Scriptural doctrine of, 301
Marriage of Roman-Catholic priests, Apology for the, 346
Martyn of Fenrose, 112
Matilda, or the Welch cottage, 110
Maunde's translation of Delille's Homme des champs, 56
Mauritius, History of, 269
Mavor and Pratt's classical English poetry, 104
Mechanics (practical), Four essays on, 103
Mémoires de l'Institut National, 465
Meteorological journals, Eight, 464
Michaud's Rise and fall of the kingdom of Mysore, 510
Microcosm, 460
Millennium, The, 275
Mineral waters, Chemical history and medical powers of some, 176
Ministry, Old Englishman's opinion on the resignation of the, 337
Monmouthshire, Historical tour in, 241
Moral legacy, 354
More (Hannah)'s controversy with curate of Blagdon, 224—228

Morrice's art of teaching, 420
Morris's animadversions on the supposition of the Scriptures being the only rule to salvation, 453
Mudge's account of operations for accomplishing trigonometrical survey of England and Wales, 561
Mullala's delineation of the British constitution, 404
Museum of wit, 110
Musgrave (Agnes)'s Confession, 237
——— (sir Richard), Reply to, 91
Mysore, Rise and fall of the kingdom of, 510
Mysterious husband, 353

NASMITH on the statutes relating to assize of bread, 346
Naval architecture, Collection of papers on, 120
Navigation (inland) of England and Wales, Map of, 566
Newton's memoirs of W. Grimshaw, 115
Nisbet on diet, 79
Non-residence of clergy, Historical view of the causes of, 462
Northern powers, View of the political situation of the, 215
NOVELS, ROMANCES, &c.
Adamina, 461
Adventures of Pyrenean Hermits, 113
Agnes, 114
Canterbury tales, 207
Confession, 237
Creation, 238
D'Israeli's romances, 461
Ernestina, 113
Infernal Quixote, 113
Justina, 460
Knight and mason, 237
Leonard and Gertrude, 354
Martyn of Fenrose, 112
Microcosm, 460
Moral legacy, 354
Mysterious husband, 353
Wise men of Gosmanthorpe, 114
Nuptiæ sacræ, 301

OBSERVER, Indian, 191
Olive's sermon, 454
Opinion of an old Englishman, 337
Orgueil corrigé, 464
Otmoor Common, Letter respecting inclosure of, 240
Outlines of the globe, 1
Overton's True churchman ascertained, 265
Owen's Chart of Spithead, 567
Oxen (advantages of) for tillage, Auxiliary remarks on an essay on the, 463

PAISLEY Sunday schools, Account of, 342
Palamedes, Inquiry concerning the game invented by, 134
Paley's Principles of philosophy, Annotations on, 47
Panorama, Political, 337
Paris, Topographic atlas of the environs of, 565
Parke's thanksgiving sermon, 223
Parliament, Considerations on clergy's right to a seat in, 452
Parliamentary reform, Thoughts on, 340
Parry on wool, 335
——'s translation of Reich on fever, 455
Partiality and unscriptural direction of Socinian zeal, 98
Paulino's Jornandis Vindiciæ, 355
Pearson's annotations on Paley's Principles of philosophy, 47
Pennant's Journey from London to Isle of Wight, 437
——— outlines of the globe, 1
Pennsylvania and New York, Travels in, 486
Perry's Substitutes for wheaten flour, 239
Philosopher, Rural, 56
Philosophical and chemical essays, 349
Philosophy, Annals of, 252
Phytologia, 11
Pindar (Peter)'s odes to ins and outs, 458
——— Tears and smiles, 457
"Plain Thoughts," Animadversions on, 454
Plymouth Sound, &c. Chart of, 567
POETRY.
Antonio, 236
Bray's Idyls, 350
Classical English poetry, 104
Coleccion de poësias Castellanas, 233
Extract from the Regicide, 460
Henry and Acasto, 353
Il luttuoso, 110
Julian and Agnes, 329
Marie Antoinette, 112
Matilda, 110
Millennium, 275
Museum of wit, 110
Odes to ins and outs, 458
Rural philosopher, 56
Shoe-black, 459
Tears and smiles, 457
Wedding and bedding, 106
Poets, Specimens of the early English, 44
Political panorama, 337
Politician's creed, 61
Poor-rates at Kingston-upon-Hull, Considerations on the increase of, 324
Population, Reflexions on evil effects of an increasing, 448
Porcupine (Peter)'s Trial of republicanism, 338
Powell on the bile, 52

Practical economy, 116
Pratt's Gleanings in England, 86
—— and Mavor's classical English poetry, 104
Price's chart of Plymouth Sound, &c. 567
Provisions, Observations on high price of, 218
Psalms, Collation of Hebrew and Greek texts of the, 154

QUESTION (The), as to admission of catholics to parliament, 449
Quixote, The infernal, 113

RAVIZZOTTI'S collection of Spanish poetry, 233
Reeves's Case of conscience solved, 450
Reeves's collation of the Hebrew and Greek texts of the Psalms, 154
Reflexions on recent events, 337
Reform (parliamentary), Thoughts on, 340
Refutation of misrepresentations relative to bank-notes, 339
"Regicide," Extract from the, 460
Register, Asiatic annual, 21
Reich on fever, 455
Religion (Christian), A few words on the unreasonableness of not attending to the, 220
———, Considerations on the present state of, 95
———, Epistolary discussion upon, 219
——— (Reflexions on the state of) at the close of the eighteenth century, 96
Render's tour through Germany, 361
Rennell's discourses, 33
Republicanism, Trial of, 338
Retrospect of foreign literature, 529
Revelation of St. John, Remarks on the, 341
——————, Appendix to the, 341
Review of a batallion of infantry, 463
Reviewers to correspondents, 240, 568
Rivers of Great-Britain, Account of, 381
Roberts's Indian glossary, 356
Robinson (Mrs.)'s memoirs, 295
Rochette (De la)'s geographical specimen of ancient India, 557
Rodd's translation of Le Fevre's Zuma, 112
Rush on the yellow fever in Philadelphia, 349
Russia, Letters on real causes and probable consequences of war with, 217
Ryland's Partiality and unscriptural direction of Socinian zeal, 98

SABBATH—Duty of keeping it holy, 342
Saunders on mineral waters, 176
Saussure (de), Life and writings of, 499
Scotland, History of, 66
Scripture doctrines, Defence of, 97
Scriptures the only rule to salvation, Animadversions on the supposition of, 453
——— (Hebrew), Critical remarks on the, 169, 411
Sedgwick's remarks on Blackstone's commentaries, 283
Sennebier's sketch of life and writings of De Saussure, 499
SERMON by Barton, 221
Bond, 453
Farrer, 223
Hall, 224
Hewlett, 342
Hodgson, 221
Hutton, 222
Jefferson, 453
Olive, 454
Parke, 223
Toulmin, 221
SERMONS by Blair, 391
Ferrier, 342
Gilpin, 322
Shoe-black, 459
Sibbet on the nature of divorces, 356
Sierra Leone company, Report of directors of, 117
Skrine's account of the rivers in Great-Britain, 381
Smith's map of the inland navigation of England and Wales, 566
—— map of lakes in Cumberland, &c. 566
Societies (friendly), Observations on, 92
Socinian zeal, Partiality and unscriptural direction of, 98
Sotheby's Julian and Agnes, 328
Spanish poetry, Collection of, 233
Specimens of the early English poets, 44
Spithead, Chart of, 567
Sports and pastimes of people of England, 353*
Statement (Comparative) of the food produced from arable and grass land, 231
Statistical inquirer's pocket companion, 239
Stockholders, Hint to prevent ruin of timid, 240
Strutt's Sports and pastimes of the people of England, 353*
Struve's Asthenology, 424
Substitutes for wheaten flour, 239
Suffolk, View of the agriculture of, 309
Summersett's Martyn of Fenrose, 112
Surgery, Introduction to course of lectures on operations of, 229
——— (New progress of) in France, 455
Surinam river, Chart of, 567

Survey (trigonometrical) of England and Wales, Operations for accomplishing, 561
Swelling in lying-in women, Inquiry into nature and cause of, 348

TATHAM on the advantages of oxen for tillage, 463
Taunton's answer to Croke, 240
Taylor's Angling reduced to a science, 464
——— Letters on India, 162
Teaching, Art of, 420
Tears and smiles, 457
Thomson's Divine authority of the Bible, 97
Tour through Germany, 361
—— through Great-Britain, 320
—— through part of North Wales, 433
—— (Historical) in Monmouthshire, 241
Townsend's Part of a letter to a noble earl, 91
Traveler's guide through Great Britain, 356
Travelers, Juvenile, 456
Travels into interior of southern Africa, 141
——— in Upper Pennsylvania and New York, 486
Trial of republicanism, 338
Turner's history of the Anglo-Saxons, 121
Turton's address to people in behalf of dealers in corn, 219

URETHRA (strictures in the), Observations on Home's treatment of, 456

VENEREAL disease, Observations on nature and treatment of some symptoms attending, 229
Ventum (Harriet)'s Justina, 460
View of the political situation of the northern powers, 215
Vienna, Sketches in a journey to, 523
Virey's natural history of mankind, 503
Volunteers, Address to British, 337
Voyage to East Indies, 288

WADDINGTON, Proceedings against Mr. 99
Wakefield (Priscilla)'s Juvenile travelers, 456
Wales (North), Tour through part of, 432
Warner's history of Bath, 371
Washington's letters to Arthur Young, 230
Waters (mineral), Chemical history and medical powers of some, 176
Wedding and bedding, 106
Welch cottage, 110
West Indies, History of British colonies in the, 185
Whateley's Observations on Home's treatment of strictures in the urethra, 456
Wheaten flour, Substitutes for, 239
White on the nature and cause of swelling in lying-in women, 348
Wight, Journey from London to isle of, 437
Wise men of Gosmanthorpe, 114
Witham and Welland, Facts and remarks relative to the, 119
Wool, Facts, &c. respecting the improvement of, 334
Word of advice to honest country-people, 120
Worthington-hall, Sacred exhibition at, 99

YOUNG'S View of the agriculture of Suffolk, 309

ZUMA, 112

END OF THE THIRTY-THIRD VOLUME.